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CULTURAL RELATIONS BETWEEN AMERICA AND THE NETHERLANDS SINCE HENRY HUDSON

In this brief account, Henry Hudson's voyage in the Half Moon, which brought him to the mouth of the river which bears his name, is a point of departure. Obviously, the voyage itself had little to do with the establishment of cultural relations with the Netherlands. Hudson tried to discover a navigable passage to China; after he had sailed the Half Moon to a point close to the present city of Albany, he gave up the attempt. The subsequent foundation of New Amsterdam did foster relations with the United Provinces; but the degree to which these relations may be called cultural is a matter of opinion.

More important is the Bay Colony, particularly that part of it which at present we call Massachusetts. In 1608 a group of people, mostly from Scrooby, had left England for Amsterdam under the guidance of John Robinson. They had suffered persecution and the Dutch showed a degree of tolerance which, though not perfect, was not equalled in any other country. They remained in Amsterdam one year, and when friction arose between them and a group of English fugitives already settled there, they moved to Leyden. There the relations between them and the Dutch were satisfactory, but not wholly so. It was observed that the "Fraters Angli" were headstrong.

A part of them left Leyden in 1620. American histories mistakenly say that the main reason for their leaving was an economic one; they could not earn enough money. This is contradicted by the fact that during the ten years of their stay in Leyden many moved from the poorer districts to better ones. The main reason for their departure, as Bradford clearly shows, was their desire to remain English. Their young people had gradually been absorbed into the Dutch population; the boys joined the Dutch Navy, the girls married Dutchmen, and, last but not least, Dutch, not English, had become their common language. When the Pilgrims left for Virginia (which they had hoped to reach, but instead landed in Plymouth, Bay Colony), they formed a group of persons all of whom knew Dutch, and most of whom spoke it in preference to English.

Later, when trade relations were established with the Dutch in New Amsterdam, mildly and gently referred to as the *Godless* Dutch on the Hudson, the correspondence was carried on in Dutch. The assumption was that the Dutch in the New Amsterdam colony did not understand English any too well, which was correct. It is interesting to note that until the capture of New Amsterdam by the English in 1664, correspondence relating to matters of trade was carried on in Dutch, while Dutch was used in the pulpits of the Reformed Churches in New York until the beginning of the last century. In recent times this has only been so during the period of the second world war. Two Sundays after the German invasion of the Netherlands, I was asked by Dr. Loudon, the Dutch Ambassador, then Minister, to preach a sermon in Dutch in the West End Reformed Church. The church was crowded and hundreds of men and women stood outside in the street which led up to it. When a hymn was started within the church, those outside gradually joined in the singing. It was highly moving. Few of us had realized that the Dutch colony in New York had grown to such a size.

Cultural relations between America and the Netherlands were one-sided originally, for America, with its three small colleges: Harvard, William and Mary and Yale, had little to offer in comparison to the Dutch universities. After the second world war, the picture had completely changed. Europe had suffered; the German universities, which chiefly attracted the Americans, were impoverished. There was no money left for costly experiments. America had plenty of money and gladly made it available for any legitimate reason, particularly for the furtherance of the applied sciences.

As to the early cultural relations between America and the Lowlands, I have limited my research to Leyden University and in the carefully kept records kindly placed at my disposal I have noted the following facts.

From 1687–1795, fifty seven Americans were admitted to Leyden University, not counting those who came from the Caribbean Islands. I have studied the cases of twenty-five of them, a section large enough to justify inferences which are likely to apply to the whole group. Fifteen students chose as their subject medicine, four law, one mathematics, two theology, one letters, and one philosophy.

This is highly interesting, partly on account of the subjects included but more so because of the subjects excluded. We note at once the fact that few studied theology and the reason is plain: both Harvard and Yale had theological schools well enough equipped to educate ministers of the kind which the American cities and towns then desired. The case of the students hailing from Scotland is wholly different. The Leyden catalogue contains, if I may be admitted a slight exaggeration, an astronomical number of Caledonians, so that one wonders whether there were any students left in Scotland. And yet, most of the Scottish students, like the Americans, studied medicine instead of theology.

One American studied philosophy. Philosophy was not taught as a separate subject at Leyden University in the 17th century, nor was this the case with ethics and formal logic. The presumption is justified that Mr. Samuel Provoost, who entered the University on July 28, 1764, was interested in the philosophy of religion, which subject, due to the influence of Locke, Leibnitz, Spinoza and others, had excited a lively interest.

Another, Charles Adams, studied law, and the most famous student Leyden University had ever enrolled up to that time, John Quincy Adams, later President of the United States, also chose law as his subject. Why should any American study law at Leyden University? The colonies knew only Anglo-Saxon law. Louisiana alone, a state which joined them later, still abides by the Napoleonic code. Adams must have studied Roman law, since no Leyden professor concerned himself with Anglo-Saxon law; at least, not to the point where he could qualify as an expert. We are now left with one mathematician, Ludovicus Johnston, who entered the University on August 3rd 1729. There may have been a good reason for his studying mathematics at Leyden.

One general remark may be made. The number of American students increases as we approach the end of the 18th century; 19 of the 25 were enrolled after 1760. The reputation of the university must have greatly increased. A complete study of the subject would require research into the records of Utrecht, Groningen, Franeker and Harderwijk as far as the Netherlands are concerned. Outside the Netherlands, the records of Oxford, Cambridge, Louvain and Paris would have to be examined, as an absolute minimum.

The question now remains: who were the professors who drew these young Americans to Leyden? Limiting myself to theology, philosophy, letters and law, I shall endeavour briefly to deal with their importance in their several fields of learning.

The reason why Leyden University was popular with those Americans who desired to study medicine is obviously the fact that Herman Boerhaave taught this discipline there. Boerhaave was the *omnis homo* of the 17th century, a man who studied theology, philosophy, biology, chemistry and medicine, who knew about these sciences all that was known at the time, and who furthered the development of all of them through the use of accurate experimental methods. His treatises, *Institutiones medicae in usum annuae exertitationes domesticae* (1708) and *Aphorismi de cognoscendis et curandis morbis* (1709) were translated into many languages, even into Arabic. The soundness of his general method is best shown by the motto which he adopted and which became the rule he followed in conducting his experiments. It was "Simplex Sigilum Veri", the inclusion of the necessary and the exclusion of the unnecessary.

As regards theology, the controversy between Arminium and Gomarus had come to an end, but the problem as such had not been solved. The question whether predestination in its extreme form should be accepted (which dogma the Calvinist Gomarus taught, thereby denying free will), or whether free will should be admitted, has still not been settled today. One can well imagine that a number of Americans, whose orthodoxy at the end of the 18th century was highly questionable, might have been interested. Mention must be made of Johannes van den Honert and A. van der Kemp, who taught Church history after the manner of their time. The critical study of history was not yet known, although Spinoza had laid down the principles in his theological-political tract.

For law we note the names of Scheltinga and Smallenburg, both of whom taught civil law. With regard to letters, the name Scaliger, famous everywhere, comes foremost. Barleus, well-known in his age, taught Greek, while Jacobus Golius and Johannes Heijman lectured on Oriental languages. One wonders what was meant by this term. Hebrew and Arabic, or were others included? The latter seems unlikely because the French officer's discovery of the Rosetta Stone, with its hieroglyphic, demotic and Greek inscriptions, which supplied Champollion with the key for deciphering the inscriptions on the ancient monuments of Egypt, was not made until 1799.

There remains Willem Jacob Gravesande, whose many-sided knowledge evoked astonishment in his day, an astronomer and a physicist of note, whose *Physices Elementa Mathematica Experementis Confirmato* was known to all men interested in the sciences and who yet gave his attention to philosophy, witness his *Introductio ad Philosphiam Metaphysicam et Logicam Continens,* not perhaps the most original of treatises, but not without merits all the same.

It is unlikely that any American went to Leyden for the sake of learning Dutch. If this had been the case, he might have profited by the instruction of Siegenbeek and van der Palm, but we may rule out this possibility.

No article on the cultural relations between the Netherlands and America would be complete without mention of John Lothrop Motley. This New Englander, born at Dorchester, Massachusetts, on April 15, 1814, spent most of his working years in studying the history of the Northern Lowlands. Motley had studied at Göttingen and Berlin and had become befriended with Bismarck. In the course of time he became secretary to the United States Legation at St. Petersburg and American Minister at Vienna and London, where he died in 1877, after a remarkable diplomatic career. Why did he devote his time and energy to the study of the history of the Netherlands? In order to answer this question, let us quote a few lines from Motley's preface to the *Rise of the Dutch Republic.*

"The splendid empire of Charles the Fifth was founded on the grave of liberty. From the hand-breath of territory, called the Province of Holland, rises a power which wages eighty years' warfare with the most potent empire upon earth, and which, during the progress of the struggle, becoming itself a mighty state, and binding about its slender form a zone of the richest possessions on earth from pole to tropic, finally dictates its decrees to the empire of Charles the Fifth. To the Dutch Republic, even more than to Florence at an earlier day, is the world indebted for practical instruction in that great science of political equilibrium which must always become more important as the various States of the civilized world are pressed more closely together, and as the struggle for pre-eminence becomes more feverish and fatal."

Motley made an honest effort to investigate the archives at Brussels, Dresden, The Hague and other places; he was in fact the first to make a thorough study of the archives of the House of Orange. Besides the *Rise of the Dutch Republic* he wrote *the History of the United Netherlands from the Death of William the Silent to the Synod of Dort* and *the Life and Death of John of Barneveldt,* in which he sided with Barneveldt against Prince Maurice. He has been accused of being little critical, and of writing with the heart rather than the head. Perhaps so, but absolute objectivity is reached only by a calculating machine. No man can achieve it, nor should he. We are interested in the personal views of the historian, which lend a third dimension to the account and give it depth. Ranke's famous phrase that history is an account of an event "wie es eigentlich gewesen ist" is a counsel of perfection which no one can follow, not even Ranke himself. Perhaps the moving history of the Netherlands *should* be written with the heart rather than the head.

I have reached the 19th century and might stop at this point. I have discharged my duty to the best of my ability and the word *finis* would not be inappropriate at this point. But there is a reason which prompts me to continue for a moment.

I have in mind to speak about the important relations, partly cultural, existing between the United States and the Netherlands at the present time. I may perhaps be permitted to bridge the distance between the two periods by mentioning a few noteworthy facts. In passing, I mention the influence which men of Dutch extraction have had on American politics. During the first twenty years after the revolution, sixty Dutch Americans served in the United States Congress, and later many more, of which Senator Arthur H. Vandenberg is the outstanding example. Three Presidents of the United States were of Dutch extraction: Martin van Buren, Theodore Roosevelt and Franklin Delano Roosevelt. Two men became important in financial circles: Cornelis Vanderbilt, whose family belonged to the poorest of the poor, but who, aided by his native shrewdness, managed to own a private ferryboat at the age of sixteen and eventually became the wealthiest man in the United States. The second is Edward Bok, the editor of the Ladies' Home Journal, who established the famous "Singing Tower" wild life sanctuary at Lake Wales in Florida. He married the daughter of Cyrus H. K. Curtis, and he accumulated enough money to offer $ 100,000 in American peace awards.

Hendrik Willem van Loon should be mentioned, the writer of many books, the illustrations to which increase their importance. A popularizer of sciences, from history, toward which he turned by preference, to anything that took his fancy.

Last, and surely not least, Professor Dr. Adrian Jacob Barnouw. It is difficult to think of anyone who has served his native country better as an unofficial Ambassador than he. The occupant of the Wilhelmina Chair of Dutch literature in Columbia University, the writer of many valuable books related to the Netherlands, he has rendered a service to the land of his birth which is beyond praise. Any country which has a representative such as he was, and still is, may count itself fortunate.

A few lines must be devoted to the migration of Dutch Calvinists under the leadership of Van Raalte, Scholten and Van der Meulen. They had been treated badly by the Dutch Reformed Curch in the Netherlands, which had shown a degree of intolerance to their views quite foreign to the normally indulgent spirit of the Dutch. Van Raalte was even incarcerated. The migration began about the year 1847, the Dutch finally settling in Michigan and Iowa. It is noteworthy that both Van Raalte and Scholten were trained theologians.

Van Raalte was headstrong, dictatorial, but all the same a man of high character, utterly devoted to his task and absolutely unselfish, unless the desire to gain power may be counted as selfishness. The people admired him, stood in awe of him, but he could not win their affection.

Scholten, a man of wealth, originally an artist, who later turned toward theology, was a curious mixture of conservatism in theology and a love of beauty and elegance of which John Calvin might not have approved. He built a palatial home for his wife, to whom he was devoted and whom he spoiled utterly. She continued to import her dresses from Paris, which caused a raising of eyebrows in many quarters.

Van der Meulen, born in the Province of Zeeland, originally a Deist, but converted to Calvinism, had the most lovable character of the three. While the other two were looked up to and venerated, he was worshipped and loved by the people.[1]

When Henry Hudson II sails his Half Moon into New York Harbour the calendar will read September, 1959. The Netherlands at that time will have again become a centre of attraction to American men of science, and perhaps in a more important way than before. I am thinking particularly of the American hydraulic engineers who have been turning their attention to the Netherlands ever since we started land reclamation in the Zuyder Zee district.

Generally speaking, the United States have an abundance of land and the country will not be in need of more for many decades to come. But what applies to the country as a whole need not apply to local conditions. Two instances come to my mind, the Dismal Swamp in Virginia and the bayous in Louisiana, at the point where the Mississippi reaches the Gulf. As for the Dismal Swamp, my son-in-law, Mr. R. M. Osborn of Franklin, Virginia, who is interested in silviculture, tells me that, if properly drained, the Swamp could be used for afforestation in the sense that trees of commercial value could be grown there. The bayous in Louisiana could be used for the growing of rice, much to the benefit of the poor population living there. One might deplore, as I do, their disappearance from a scenic point of view, but the world reasons differently.

Our recent attempt in Holland to defend our coastline by means of closing the estuaries through which the tidal water enters, breaking our dikes, has had the close attention of American hydraulic engineers. They, too, have realized the danger represented by the infiltration of seawater to the water-supply of Rotterdam. This renders the water brackish at this point, thus depriving the second harbour in the world of a cheap and convenient source of fresh water.

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[1] For further details consult Arnold Mulder: *Americans from Holland.*

I have mentioned these matters at considerable length, although, judging superficially, one might claim that they are not germain to the original subject. This I would deny, because cultural relations are not limited to an exchange of students and professors between two universities; they comprise all relations between countries, each of which has something to offer the other in seeking solutions to their problems, solutions by which mankind may benefit.

That America has much to offer, all mankind knows; that the Lowlands have given much in the past is an established fact; that they may be able to do so again is a matter to which I should like to draw attention.

In conclusion, let me say that since Hudson's voyage no country anywhere on the globe has rendered more conspicuous services to mankind than the Netherlands. It became a refuge to thousands seeking liberty and persecuted elsewhere. Its presses published books and treatises which could have been published nowhere else. The works of Descartes, Spinoza, Leibniz and even Voltaire first saw the light in Holland. Its area was insignificant, but its worth beyond calculation during the period I am referring to here. There is reason for justified pride.

The United States more than any other country should value the contribution which the Netherlands has made to freedom of speech, freedom of the press, and to freedom of the individual. They themselves are setting a new example, on a far grander scale, in protecting the same interests. Visitors to the Statue of Liberty find engraved upon it the following lines by Emma Lazarus, which I quote because I know of no fitter way to conclude this article:

Not like the brazen giant of Greek fame
With conquering limbs a stride from land to land
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon-hand
Glows world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
"Keep ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor.
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!"

J. A. C. FAGGINGER AUER *

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[1] Professor Fagginger Auer, born in Middelburg, the Netherlands, in 1882, is a striking example of Dutch-American cultural exchange. He studied theology at the Meadville Theological School, U.S.A., and philosophy in Berlin and Heidelberg, Germany. He has held various pastorates in liberal churches both in the Netherlands and the United States. In 1924 he became a lecturer at Cornell University, later professor of ecclesiastical history at Tuft's College, and in 1929 professor of theology in Harvard University, where he remained until 1953. Professor Fagginger Auer is a Doctor of Philosophy (Cornell) and an honorary Doctor of Divinity (Meadville).

HOLLAND, AMERICA AND HENRY HUDSON

The following article contains the text of a speech delivered by Professor W. Ph. Coolhaas on the occasion of the Henry Hudson Commemoration at the Royal Tropical Institute in Amsterdam on April 4 last.

We Dutch are rather conservative. It seems queer to us that in order to get as quickly as possible to East and Southeast Asia, to Hongkong and Tokyo, to Singapore and Bangkok, we should have to travel by way of the North Pole and Alaska. Why is it that this seems queer to us? Because from our early schooldays we have been accustomed to maps on which the places just mentioned were situated neatly, as they should be, in the east and the south east.

And yet this idea of travelling to East Asia via the north was already known to us three and a half centuries ago. In those days we Dutch were rather progressive. We wanted to go to Cathay, to the marvellous country about which Marco Polo had told so many stories, and also, less specifically, to the Indies, which yielded precious spices. We knew it was possible to get there by way of the Cape of Good Hope, which route had been indicated to us by the Portuguese. We also knew one could get there through the Straits of Magellan, through which the Spaniards had passed. But our clever geographers and bold navigators said: "Why choose such long detours if there is a much shorter route?". It must be possible to sail north, not indeed straight across the North Pole, but to the north of Asia, round Asia, the north coast of which was once supposed to be much shorter than is actually the case. Some people thought of a passage north of America, about which nothing at all was known. For almost half a century, from roughly 1575 to 1625, this northeast (and occasionally also the northwest) passage was being sought for.

It was no easy job: the Arctic Ocean proved a formidable obstacle; it contained an ice barrier greater than our navigators were able to cope with. But, as I have said, it took the tenacious Dutch a long time to recognize this.

The trade to East and Southeast Asia had been organized by us in a way which may now seem rather strange, yet which arose quite logically out of the circumstances. When, in 1596, the Dutch had discovered the Portuguese route to Asia, our ships at once flocked there by the dozen, but the competition was so heavy that they did each other out of the profits for which these expensive voyages had been undertaken. Moreover, individually they proved to be no match for the other Europeans they found there: the Spaniards, with whom we had been at war for the past thirty years and were still to be for another fifty, and the Portuguese, who were ruled by the same king as the Spaniards. Is it not clear from this why in 1602 our brilliant political leader, Johan van Oldenbarnevelt, induced all the shipowners and merchants to co-operate? "Dutchmen", he said, "you can all have your share of the profits of the trade with Asia, but only if you co-operate and contribute to the capital of the Company, which will receive a charter for this trade from the highest authority, the States-General." He thus became the founder of the very first limited liability company in the world, and this company, the United East India Company, had to pay, quite logically again, for the monopoly granted to them by continuing the fight against the enemies of the nation in the Far East at their own expense.

The directors of this Company, of course, were also keen on attempts to find the shortest route to the east, the one via the north, more specifically the route to the north of Asia, the so-called Northeast Passage. About 1608 an English navigator, Henry Hudson, happened to be more interested in this than his Dutch colleagues. This experienced pilot had already made a few voyages to the north, when he got into touch with the directors of the Dutch East India Company. He persuaded them with some difficulty that there was good reason to assume that the northern passage actually existed, and, more particularly, that *he* was the man to find this route for them. The directors therefore concluded an agreement with him, according to which they promised to furnish him by April 1609 with a ship of about 30 lasts (that is 60 tons), complete with a Dutch crew, victuals and everything else that was needed on such a voyage of discovery. Hudson promised to find the northeast passage to East Asia in this ship. As we Dutch are convinced that virtue is practised only by our compatriots – and not even always by them – Hudson was expressly warned that he must not take it upon himself to use the ship for other explorations. The Dutch gentlemen – it was the Amsterdam directors who had to fulfil the terms of the contract – kept their word. On the 6th of April, 1609, three and a half centuries ago, their 'Halve Maen' was ready. This cockle-shell actually measured 35 lasts (that is 70 tons) and carried a crew of eighteen to twenty. Hudson could now set out on his voyage. But – I told you that foreigners are not to be trusted – he did not keep so conscientiously to the agreement. It is true that he began by sailing in the right direction, as far as Novaye Zemlya, but once he had got there, he put about the wrong way altogether: he sailed due west and via the North Cape and the Faroe Islands reached the Banks of Newfoundland. From the nautical point of view this was a splendid achievement, but what could have possessed the man to deviate so obviously from his promise? We know he had heard from one of his compatriots that according to vague reports from the Indians a big stretch of water in the west could be reached from the east coast of America. These Indians had probably referred to the Great Lakes, but Hudson thought they meant the Pacific. If he succeeded in getting to Cathay, to China, in this way, his patrons at Amsterdam would surely forgive him his escapade. He risked it.

From the Banks of Newfoundland he sailed south and thus, on the second of September, 1609, reached what is perhaps the most favourable spot in America for trade and shipping, wonderfully sheltered roads between easily accessible islands and near the wide mouth of a river which led far inland, the river which later was to bear Hudson's name. He fancied himself the discoverer of this promising land, our Englishman in the employ of the Dutch, but this was not true. The first to discover it had been Verrazano, a Florentine in the service of the French, who had been here 85 years earlier. But the discovery of the land in 1524 by this man, Verrazano, had passed into oblivion, like the voyage which in 1525 had brought Esteban Gomes, a Portuguese in the service of Spain, to these shores. It is a curious coincidence that from the very outset there was something international about this region. On three occasions the discoverer or rediscoverer was a foreigner in the employ of an alien government. All six nations that played a part in the voyages of discovery had a hand in finding Manhattan.

Hudson did much more than his remote, long-forgotten predecessors; he sailed up the river as far as he could, up to what is now called Albany, and stayed a whole month in this wonderful country. It is not likely that he was in the right mood to admire the natural scenery: it was becoming more and more evident to him that he would never reach the Pacific from this place. What would happen to him if he returned to Holland? He had deviated from the rigorous terms of the agreement and he had not found the route to Cathay either. But what would happen to him, if he returned to England? He had not abided by the charter which his Sovereign had granted to the Virginia Company, for he had entered the service of England's Dutch competitors and shown them the route to America. In the end he preferred to cast himself on the mercy of his own compatriots. Hudson brought the "Half Moon" to Dartmouth, from where she returned later to Amsterdam, but not under his command. During a subsequent voyage, in the service of the English, during which he discovered the bay named after him, poor Hudson met with a dreadful death.

How was the voyage of discovery taken at Amsterdam? In bad part of course, as far as the directors of the East India Company were concerned, for the newly found region lay outside the range of their charter. Others took a different view. The northern part of America had attracted little attention in Holland up to that time. To be sure, from about 1597 fishing vessels occasionally came to the Banks of Newfoundland, but that was all. The leading shipowners and merchants of Amsterdam and the other ports did not expect to derive much profit from trade with the indigent Indians. Privateering in this neighbourhood too, far from the routes of the richly laden Spanish and Portuguese colonial fleets, could hardly be very profitable. But they soon changed their minds when the results of Hudson's voyage became known. The islands off the American coasts, near the mouth of what was to become the Hudson river, provided splendid sites for a trading settlement. The North River, that is, the Hudson, as well as other rivers discovered not long afterwards, such as the South River, that is, the Delaware, and the Fresh River, that is, the Connecticut, made it easy for ships to sail far inland, and there the Indians proved to have valuable merchandise for sale: furs, beaverskins especially.

Soon afterwards ships were dispatched by various shipowners at Amsterdam to continue the explorations. By shipowners at Amsterdam, for Amsterdam was almost the biggest of the Dutch commercial towns which were beginning to take an interest in the Hudson territory. We are ignorant of the result of these explorations. We only know for certain that in 1614 Adriaen Block rediscovered the territory and mapped it out. This man deserves mention as being the first Dutchman to play an important part in the contact with what he called New Netherland. In the same year, 1614, the New Netherland Company was founded, at Amsterdam of course. This company, in which all the skippers, including Block, and all the merchants interested in this field of activity were represented, received a monopoly running till 1618 from the States-General. A few small forts were erected, such as Fort Nassau, on the site of what is now the town of Albany. The monopoly was not renewed in 1618, and for a few years anyone was at liberty to trade with New Netherland. But in view of the war with Spain, it was desirable to combine the trade to America and that to West Africa, in the same way as had been done in 1602 with the East India Company for East and South Asia. Consequently, in July 1621 the West India Company was founded, its charter also covering New Netherland. The company was not immediately interested in this latter territory, but in 1624 the first ship with settlers went there. They were 30 Protestant families that had left the Walloon country for religious reasons. The idea was that they should grow the crops which the ships coming for the fur trade would want. In the next year (1625) a much more important event took place. In the past the Dutch had acquired enough experience with newly discovered lands for them to realize they had better not go too far up river to establish a shipping and trading centre. An eminently suitable site for their purpose was the southern extremity of Manhattan. It was there that they set up the centre of their colony, which on the 25th of April 1625 was christened New Amsterdam. The choice of this name was quite natural, because all ships set out for this place from "Old Amsterdam".

A quantity of goods, to a total value of sixty guilders, formed the enormous capital with which Peter Minuit, the first governor, bought the ground from the Indians. Both parties were highly satisfied with the transaction. And the Dutch had certainly hit the mark! The small town which arose near the fort on the southern extremity of Manhattan served its purpose perfectly and became a small-scale replica of the commercial town of Amsterdam.

The traders sailed up the river to meet the Indians who supplied the furs, but they also skirted the coast to the north and the south, to New England and to Virginia, where there were English settlements. For, though in December 1621 King James I had protested against the settlement of the Dutch in these lands, which he had reserved for his own subjects, this was only a *pro forma* protest, since he knew quite as well as the States-General did that this reservation of the Hudson territory had not been followed by settlements by the English. The States-General quietly ignored the protest and the English settlers benefited by the presence of New Amsterdam, from where contact with Europe was much better and far more regular than from their own less favourably situated towns. Some Englishmen even preferred to settle in the Dutchmen's town, with its brick houses, schools, and hospitals, and its pleasant, brisk activity, rather than stay in their own dull and backward towns. New Amsterdam was considered a success by the directors of the Company. But the rest of New Netherland was not by any means as successful. The home country was not at all overpopulated. Those who were tired of country life went to one of the numerous towns, where it was easy to make one's living. They did not dream of becoming farm hands across the ocean, on a farm that did not promise much. The Company was practically unable to recruit settlers for the rural districts designed to provide the new town with agricultural produce. Hence, in 1629, the "patroon" system was instituted: to all those who undertook, within four years, to make fifty families emigrate to the colony a large tract of land was allotted, with many privileges, including ten years' exemption from tax.

Several big merchants, including many directors of the Company, accepted these terms, but only one of them was permanently successful. This was that renowned figure, Kiliaen van Rensselaer, whose prosperous settlement Rensselaerswijk laid the foundations for the later town of Albany. The other "patroonschappen" were less prosperous. This was partly due to the fact that the settlers got involved in quarrels with the Indians, who were not very keen on having all these farmers in their country. The Dutch governors in the first two decades were not the right men to solve this problem. Stories abound of gruesome massacres of settlers by the Indians as well as of equally gruesome instances of retaliation. Only the last and well-known governor, Peter Stuyvesant, who governed the colony as long as all his predecessors put together, succeeded in getting on better terms with them. By that time, however, interest in the "patroonschappen" had dwindled greatly, and for this reason the Company tried to attract smaller men as yeomen.

Stuyvesant was no man of easy temper; he was of the opinion – and not altogether unjustly – that he always knew better than his settlers. And yet their grievances were really concerned with the system whereby a commercial body was at the same time the government, rather than with stubborn Peter Stuyvesant. Though the directors of the Company took no notice of the complaints, the authorities in the Dutch Republic did. They ordained that from 1640 on citizens would be allowed to trade on their own account with the neighbouring English colonies, and from 1645 on, also with the Company's other settlements, which were situated in the West Indies, where negro slaves could be bought. They were also allowed to send ships to the mother country. In 1652 the States-General granted New Amsterdam municipal rights and its own municipal government, after the manner of the home country. But this measure seemed more democratic than it actually was: under a man like Stuyvesant municipal autonomy was hardly possible, and perhaps this was a good thing, for to govern a town by settlers who had come together by chance from far and near was hardly a practical proposition. By chance and from far and near: that was the great difference between this bustling Dutch commercial town, with its rather insignificant hinterland, and the neighbouring regions occupied by the English. The people in the home country had not troubled very much about the boundaries of the Dutch territory in the Hudson valley. They vaguely imagined the southern boundaries to be somewhere Virginia began, and those in the north very far away, where the French had settled. But this did not imply that they did not recognize the settlements of other nations inside these boundaries. Instead the idea was that wherever Dutch people lived in this district, they fell under the jurisdiction of the authorities at New Amsterdam. English claims were actually acknowledged even north of the town. And to these parts, as well as to those further south, there flocked – out of considerations of principle or conscience – a good many people who were tired of conflicts and persecutions in England and hoped to begin a new life, based on their own principles, in this freer world. Any dissenters from the Established Church, whatever the nature of their dissent, found a home here, from the Maryland Catholics to the New England Puritans. But Holland in those days was the most tolerant country in Europe, and no one was obliged to leave it for religious reasons. Soon sparsely populated New Netherland became hard pressed, for the English colonies were steadily growing in size. Boundary disputes arose in the north, near the Connecticut river; difficulties occurred in the south, near the Delaware river. The Dutch settlers remained on friendly terms, however, with others, particularly with the men of Virginia. The situation became serious when, in 1652, Holland became involved in a war with England. Fortunately, peace was restored in 1654, before an attack could be launched by Cromwell, a much more formidable opponent than the first two Stuart kings had been.

It was after this period especially that the colony developed economically. This was instanced by the fact that in 1656 the city of Amsterdam caused a daughter town to be built on the Delaware: Nieuwer-Amstel. However, its population soon moved to other settlements. It was not until later, in 1662, that Dutch people settled in the colony for religious reasons. This was the result of an interesting experiment on the part of Cornelis Plockhoy of Zierikzee, a Mennonite idealist, who founded a Christian community in New Netherland, a laboratory for social experiments. Perhaps this might have developed into something which, being based on spiritual principles, could have given the colony firmer roots than the gay, materialistic and libertine existence of the capital, with its international air. But it was now too late. In September 1664 a fleet under Richard Nicolls appeared off the town. Charles II had revived his grandfather's claims to the entire east coast of America in more serious fashion and had granted the title to the Hudson territory to his brother, the Duke of York. Nicolls now claimed the colony in the latter's name. The population consisted of about 10,000 settlers, but these included some three to four thousand foreigners, among which the English were by far the most numerous. And even among the Dutch settlers the Company government was not very popular. Nor was the high-handed governor, Stuyvesant, who had no adequate military forces under his command in this time of peace, able to muster armed citizens for the defence of the colony.

New Amsterdam thus became New York. And so it remained, both shortly after the surrender, during the second naval war between Holland and England which soon broke out, and subsequently in peace-time. But the tide turned once more in 1672, when Holland went to war again, this time not only with England, but with France as well. On the 7th of August 1673 a naval squadron from the province of Zeeland, under one of the famous admirals of the Evertsen family, Cornelis Evertsen the Younger, appeared with a couple of Dutch ships under Binckes off Manhattan. The inhabitants had by now been cured of their pre-1664 anti-Dutch feelings. Dutch farmers boarded the ships to welcome the Zeelanders and soon New York had fallen into the hands of the Dutch again. But this time, the admiral decided, New Netherland was to be placed directly under the States-General, and the capital was to be called New Orange. However, the conquest was not permanent. To the authorities at home it was of the greatest importance that England should prove prepared to make peace in 1674, and France alone remained as their enemy. For this they were quite willing to sacrifice New Netherland. By the peace treaty of Westminster, the colony finally became lost to Holland.

We Dutch are sometimes inclined to play with the idea of what would have happened if the heart of the U.S.A., the biggest city in the world, had remained within the sphere of Dutch culture. But we realize that this is a mere game: there was no chance of the survival of an island of Dutch culture among the rapidly expanding English colonies. Merchants, shipowners, and sailors, especially the Dutch, to whom in the seventeenth century half the world was open, took life in a different, more easy-going way than did immigrants on conscientious grounds.

And yet traces of the Dutch spirit long remained perceptible in these regions, even in spite of the fact that in consequence of English legislation the shipping trade was obliged to switch over from Amsterdam to London and Bristol. Families of Dutch origin stuck for a long time to the language and church of their ancestors. New blood too was added now and then: up to the end of the eighteenth century some 6,000 Dutch people settled in North America, especially in the Hudson district. And they were prolific families too. An utterly unverifiable estimate would have it that in 1790 about 240,000 people of Dutch origin were living in the United States, 200,000 of them in the State of New York. The Dutch language, particularly because it continued to be used in their churches, was still so much alive in those days that sermons were delivered in it everywhere. It was only after this time that the situation deteriorated and the Dutch Calvinist Church consequently lost its specifically Dutch character. And yet slight traces of the language lingered on much longer. When, in the middle of the nineteenth century, immigrants from Holland arrived, there were still a number of people who were able to understand them, and even as late as 1873 a villager in a remote district welcomed a Dutchman with the words: "Main Heer, ik kan speek Duitch". All these people of Dutch origin had long since become good Americans, as was testified by the Van Rensselaer family, all the adult members of which, a round dozen, played an active part in the War of Independence.

This War of Independence forged bonds of quite a different nature between the two nations, both of them republics, an uncommon phenomenon in the eighteenth century. Both at Amsterdam and in New York people's interest in their remote kinsmen revived. But one should not rely too much on the official professions of friendship in those days of rhetoric. The Dutch hailed their remote brothers as sons of liberty, the Americans praised our heroism in the Eighty Years' War against the Spaniards. But meanwhile the Dutch were thinking of the big profits they derived from the smuggling trade with the rebellious provinces via their West Indian island of St. Eustatius, the "Golden Rock"; the Americans looked upon the Dutch as those European capitalists who were in the best position to aid them with the credits which were so badly needed during the early years of the Republic. In the true eighteenth-century spirit they did not address the Dutch as: "Gentlemen who are rolling in money", but as "Sons of the sixteenth century fighters for liberty", and the Dutch, who hoped for a revival of shipping and trade, answered them with words like "Brothers in liberty". The privateer, Paul Jones, was welcomed enthusiastically at Amsterdam; so popular was he that he still lives on in folk song. The Americans who came to this country were by no means insignificant men: I need mention only John Adams, later the second President of the U.S.A., who was accompanied by his son, later also president, who had studied for several years at Leyden University. As both parties – on the Dutch side Amsterdam again took the lead – were anxious to co-operate financially and economically, a trade agreement was, of course, very soon concluded, in 1782. Though the New York trade did not quite come up to expectations on this side, the loans were floated all right. They proved no bad investment, and to the young Republic in the west were really indispensable. How could it have got through the difficult early years and how could it later have afforded to purchase Louisiana without this money? Grants of capital to the U.S.A. then became customary at Amsterdam in quite a different way as well, as in the Holland Land Company, a business venture on a grand scale in those days. Soon the big republic became important for its small sister in yet another sense. In 1795 Holland was occupied by French armies; the old form of government was abandoned and the modern Batavian Republic proclaimed. But this Republic became involved in hostilities with England again and, unlike the position in earlier days, was powerless to give its mercantile marine adequate protection. Neutral Americans then secured contact with the colonies of the Batavian Republic in west and east and carried the colonial produce to Holland. Ever since, the economic and financial relations between the two countries have been good, and often excellent, though it would take me too far out of my way to discuss this in detail here.

I now want to recall, very briefly, just one more important moment in the relations between Holland and America, a moment that falls in the middle of the nineteenth century. And I venture to indulge for a while in the game that is normally forbidden to a historian: the game of "if this, that or the other had actually happened". Well then, if the events of 1846 and the next years had taken place two centuries earlier, New York might now still be called New Amsterdam. More than two centuries after people who had left England for religious reasons were flocking to North America, as we saw, to Maryland and to New England, people leaving the Dutch inland provinces, especially for religious reasons, crossed to the United States, to Michigan, to Ohio, and to Wisconsin. It is true that they were not actually persecuted in the mother country, but they did not enjoy the freedom of conscience they desired. Once again they were predominantly Calvinists, related in spirit to the Pilgrim Fathers of 1620, and there were also some Roman Catholics, like those who went to Maryland in 1632. This year, 1846, was followed by several years during which the numbers of Dutch people who migrated to the States were larger, and often much larger, than they formerly were in a whole century. These people became good Americans; they made a valuable contribution to the development of the Great Republic, but in particular the Calvinists among them, precisely because of their religious denomination, kept up their connections with Holland. Family reunions, across the Atlantic as well as on this side, are by no means rare; in this way, too, they help to keep alive friendship between America and Holland.

Recapitulating, I distinguish two periods during which our nation made an important contribution to the moulding of the American nation: between 1624 and 1664, and after 1846. For the Republic the most important contribution was the one made in its early years, when the financiers of Amsterdam helped the Americans over the worst financial difficulties. If I am to mention the names of great Americans of Dutch origin, the most prominent that occur to me are, of course, Roosevelt and Lansing. But here again the time I have available obliges me to confine myself to them only.

For Holland, from 1624 to 1664 New Amsterdam signified a not inconsiderable trading post. But a more important thing is what the U.S.A. has come increasingly to mean to this country in the economic and financial sectors. And far more important still is the confidence practically all the Dutch have in the U.S.A. In difficult times, in all classes of society, the somewhat primitive remark: "America is sure to help us" is often made. Such a remark meets with universal approval. And indeed, America has helped us repeatedly, not least during the past twenty years. But let us make no mistake: America used to be a distant friend, and a Dutch proverb says: "A good neighbour is better than a distant friend". Is America really a distant friend still, in these days of excellent communications? Has she not rather come so close to us now that she has also become a good neighbour? And what could be better than that?

(Translation by Miss. C. Dikshoorn)

PARAPSYCHOLOGICAL RESEARCH IN THE NETHERLANDS

Like those in so many other countries of the world, we in "the lowlands by the sea", have for centuries known persons and phenomena which nowadays form the subject matter of the offshoot of psychology referred to by the name of "parapsychology". Without going too far back into the past we may say that in the 17th and 18th centuries numerous reports can be traced relating to cases of spontaneous paragnosia [1] (telepathy and clairvoyance), of which some were strongly authenticated. The activity of Mesmer and his disciples in Paris also made its influence felt among the inhabitants of the Netherlands, and in the first half of the 19th century various writings appeared in this country devoted to the clairvoyance of somnambulists. Some of these authors may be regarded as the precursors of the parapsychologists of our own day.

During the second half of the 19th century psychology began to develop into an independent, partly experimental, science, a development which led to specialization. In this way various different branches of general psychology have come into being, of which parapsychology is one. It may be looked upon as a happy circumstance for the Netherlands that Professor G. Heymans (1857—1930), the founder of the Netherlands' first university laboratory for experimental psychology, in Groningen, should have displayed an interest in parapsychological research. The interest he showed led, in 1920, to an investigation being made at the university of Groningen in the field of telepathy which is still regarded as "exemplary" in specialist literature. The subject of the tests was a student who appeared to be endowed with remarkable telepathic susceptibility. The "quantitative method" was employed for these tests, thereby making it possible for the results obtained to be presented in statistical form. They proved to be highly significant.

In the same year, Professor Heymans and a number of others provided the impulse for the founding of the Psychical Research Association [2], an organization which has done much to promote parapsychological research in the Netherlands. In the early days, the society published *Communications* at irregular intervals, these being incorporated in later years in the *Tijdschrift voor Parapsychologie* (Journal of Parapsychology), founded by Dr. P. A. Dietz (1878–1953) and the present author in 1928. In 1932 Dr. Dietz, a Hague nerve specialist, was appointed as external lecturer in parapsychology at Leyden University, an appointment followed, a year later, by the present author's appointment in a similar capacity at Utrecht University. In 1951 the government appointed me to teach the subject in the university itself, this being followed, in 1953, by my appointment as professor extra ordinarius of parapsychology at Utrecht. At the same time I was entrusted with the direction of the same university's Institute of Parapsychology, which commenced its work on November 23 of that year.

The systematic investigation of the occurrence of spontaneous paragnosia in the Netherlands had been embarked upon shortly after the founding of the Psychical

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[1] Or "extra-sensory perception".

[2] Studievereniging voor "Psychical Research."

Research Association. Surveys, on which the daily papers (and later the broadcasting companies) were called in to co-operate, provided us with many well-substantiated cases of spontaneous telepathy and clairvoyance over the years, details of some of which we have published in the Journal. The cases of spontaneous paragnosia were reported from all levels of the population, and this was only to be expected, taking into account the fact that paragnostic phenomena are based on normal human capacities. The results of these surveys were also in complete agreement with the findings in other countries where similar tests had been made, and this, again, was to be expected.

Interest in parapsychological research led some persons who had repeatedly noticed paragnostic elements in their dreams to make a systematic practice of recording these dreams. They include the engineer, Dr. J. M. J. Kooy, a well-known expert on space travel. Over a period of years he faithfully recorded his memories of his dreams on waking every morning. He made two copies, sending on the duplicates to myself for examination. Furthermore, he read his notes through systematically and provided them with his comments. This investigation revealed that not only the recent past but also the near future was reflected in his dreams. He often detected in himself proscopic dreams with fragmentary congruency, as described by J. W. Dunne. The statistical arrangement of the material obtained caused it to be seen that there was no arithmetical justification for declaring the prophetic dreams, later fulfilled, to be chance co-incidences.

An appreciable portion of the dream material Dr. Kooy produced proved to be connected with (unexpected) deaths, a specialized interest related to a psychic trauma. About one year before Dr. Kooy began his investigation, he had lost his father, to whom he had felt a strong emotional attachment. His dream images displayed a strong associative relation to the loss he had suffered.

In 1948 appeared my book *Oorlogsvoorspellingen* (Predictions of War), containing the results of an enquiry I had made into the question as to how far the second world war had been foreseen. I have included in this book a number of well-authenticated prophetic dreams from the years prior to 1940, relating to some forthcoming occurrence or other in the life of the dreamer in which world events were indirectly reflected. One of these dreams concerned a Mr. B. L., who informed me in 1939 that he had dreamed of German soldiers forcing their way into a house along the Nieuwe Keizersgracht in Amsterdam, formerly the premises of a gas-mantle factory. I noted down this dream. In 1942 the house Mr. B. L. had indicated was purchased by an organization set up by the Germans called the "Jewish Council", which was to "take care of" the affairs of the Jews. Mr. B. L., himself a Jew, was set to work in this establishment, and in July 1943 German soldiers did actually force their way into the house, so that what Mr. B. L. had dreamed came true. It is certainly highly unlikely that a chance co-incidence could be involved here. In 1939 there was no reason whatever for expecting that in the event of a German invasion of the Netherlands the house Mr. B. L. had described would play any special rôle. Another important point is that I had recorded the dream, so that there was no question here of falsified memory.

Although great importance should be attached to the investigation of spontaneous cases, so far we cannot make do with them alone, but ought also to make observations under experimental conditions. Psychoscopists provide us with a good opportunity for doing this. We understand by the term 'psychoscopist' a paragnost who usually makes use of an object, an 'inductor', as an aid. The following case, chosen very much at random, may serve as an example of a test made with a psychoscopist. I have reported it here in slightly abbreviated form.

On June 20, 1950, Dr. J. Z. laid, in my presence, a sealed, blank envelope on the table, with the object of using this as an inductor for a psychoscopic test. The subject was a Mr. G. C., with whom many tests had been conducted in the course of the years by myself and by others.

The subject's words	*Comments* [3]
This envelope contains a piece of paper on which someone has formulated his thoughts. The word anthology keeps occurring to me. It is an anthology of his thoughts. Was this man in contact a short time ago with a German? He may be a German himself. Now I've got a clearer impression. It is a letter from a German to a German.	The envelope contained a MS draft (rough sketch) of a letter, written by a German scholar (chemist) resident in the United States and staying temporarily in the Netherlands, and addressed to a colleague in Germany. The letter contains a selection of his ideas on a certain biochemical subject.
How touchy the man is. I form a picture of someone who takes off his shoes and walks in stockinged feet. That signifies to me that I am concerned with someone who very easily takes offence. [4]	The writer is a person who is very easily offended.
He is very afraid that he will say something his opponents might use against him.	True.
He is a great man who is engaged on experiments in chemistry. Has that anything to do with the artificial generation of tumours?	The writer of the draft letter is indeed a great man of learning, concerned with producing tumours in animals by artificial means.
His health leaves something to be desired. He has had an operation to the gall-bladder. It has been removed. He still suffers pain.	True.
Has the therapy he is looking for anything to do with atomic energy? I get an impression of radioactive matter.	The draft does in fact speak of radioactive matter.
Now the word isotope occurs to me. Could that be right? Was it that?	The word isotopes does, indeed, occur in the draft.

Over the years we have conducted experiments with scores of psychoscopists; their number runs into thousands, and the results have been published in various writings. These tests have shown that a considerable portion of these paragnostic achievements are based on telepathy, that is, on the occurrence or thoughts stemming from the psychism of the leader of the experiments and persons who can be placed in the same category. [5] That distance plays no rôle here has become apparent from numerous tests in which third parties were included who were not aware of the inductor's place of origin. The subjects of the tests proved able in such cases to make telepathic contact with testers not themselves present, irrespective of the intervening distance. Paragnosts appear to be able to break through the time as well as the space barrier. We have already seen that numerous, well-authenticated dreams (not to be argued away) have been recorded in which the dreamer obtains a glimpse of unpredictable future events. In our tests with psychoscopists it appears that their "impressions" do not only concern their consultants' present and past, but that they are able to obtain sudden flashes of insight or glimpses relating to things that are to happen to them in the future. [6] Scores of well-authenticated and convincing examples of this are to be found in professional literature on the subject. They strengthen us in our conviction that it is not only our naïve realistic conceptions with regard to space, but also those with regard to time, which require revision.

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[3] No comments were made during the test itself. These remarks were not added until after the test had been completed.

[4] Similar cases of thinking in pictures are frequently met with among our paragnosts. We have paid a great deal of attention to this and pointed out the correspondence between their images and those we have got to know through the investigation of dreams.

In some of our writings we have pointed out that the psychoscopists enable us to provoke spontaneous phenomena and to make observations under experimental conditions. This provides a sufficient answer to those who tend to speak of "chance coincidence" in referring to spontaneous cases. If, however, these spontaneous cases could be explained away so easily, this would mean that the psychoscopists could supply us with chance coincidences to order. Even the most fanatical supporter of the coincidence hypothesis will be obliged to admit that the term "coincidence" becomes nonsensical when used in such a phrase as "provokable coincidence". Anyone who speaks of "provoked chance coincidences" shows that he understands neither the content nor scope of the concept "coincidence".

Parapsychologists soon felt a desire for certainty based on mathematical calculations, and this led to the application of the "quantitative" of "statistical" method in parapsychology. The French physiologist, Ch. Richet, was the first to make use of this method for research into telepathy and clairvoyance, in 1884, since when various investigators have employed the method. In the United States, J. B. Rhine and his assistants, of Duke University, Durham, N.C., have acquired wide fame for its application. [7] In England it is the mathematician, S. G. Soal [8], who has made highly important contributions to the proof of the existence of parognosia by the application of the statistical method. In our country it was Dr. P. A. Dietz (1917) and G. Heymans (1920) who made a beginning with its application.

In 1956, Miss N. G. Louwerens, of the Institute of Parapsychology, commenced an investigation among a number of kindergarten children in Utrecht. For this work a dismountable, easily movable screen was built, consisting of three walls. A shelf was mounted on the rear side of the screen, on which a book and a signalling set etc. could be placed, while behind it was a chair, where the leader of the class could sit, completely unseen by the children.

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[5] In his essay *Over de verklaring der telepathische verschijnselen* (Concerning the Explanation of Telepathic Phenomena), 1925, G. Heymans has already pointed out that if we look upon telepathic phenomena as being based on the sudden occurrence of thoughts which derive from the consciousness of another person, a great deal becomes explicable that otherwise seems to defy explanation. The arguments in support of this psychological explanation of telepathy have piled up since. See my *Telepathie en Helderziendheid* (Telepathy and Clairvoyance), Zeist, 1958.

[6] Some investigators have posited as a working hypothesis that in his deepest being the human being knows his own future and that the psychoscopist derives his proscopic knowledge via (precognitive) telepathy from the psychism of his consultant. Speculations have been attached to this working hypothesis with regard to the braking function of the brain (H. Bergson) and the "Eternal Now", to which the mystics had already borne witness ("There is no Before nor After: what is to happen tomorrow/God has already foreseen from the Beginning of Eternity" (Angelus Silesius). Besides making correct forecasts, psychoscopists repeatedly make false forecasts unwittingly. One of the reasons for this is that they get into telepathic contact with their consultants and predict to them the future which they (the consultants) "dream" of. I have already given eloquent examples of this in various of my publications, pointing out the dangers involved in the injudicious consultation of paragnosts by the public.

[7] See J. B. Rhine & J. G. Pratt, *Parapsychology*, Blackwell, Oxford.

[8] See S. G. Soal & F. Bateman, *Modern Experiments in Telepathy*, Faber and Faber, London.

The children, a dozen at a time, sat at small tables on which lay envelopes. Each envelope contained 150 coloured pictures (5 x 30). These pictures depicted a doll, a toy motor car, a ball, a baby deer and a number of piled-up cubes, each toy being given a colour of its own. In a book, lying on a shelf in the cupboard, were 25 (5 x 5) coloured pictures of the toys mentioned, and, on the opposite pages, black-and-white photographs of the toys as well. The pictures, which were considerably larger than those in the envelopes, had been arranged according to mathematical principles.

The children were set the task of guessing which picture the leader of the class was looking at. Every time the leader received a signal to do so, she turned over a page, the signalling apparatus being operated by an assistant in the classroom. As soon as the leader had acted upon the signal, she informed the assistant of this by means of a light signal. The assistant could never know which picture the "agent" had before her. The assistant then let the children know, by a sound signal, that they had to "guess" a coloured plate, whereupon they made their choice, entirely independently of one another, out of the pictures in their envelope. These pictures they had first shaken out on to their tables and shuffled them up again (under Miss Louwerens' supervision). Another assistant then went to the children's tables and collected the pictures they had chosen and arranged them in a special box, each picture showing the child's number on the back. After every round, the contents of the box were handed over to the assistant operating the signalling apparatus, whereupon he put them into one of the 25 numbered envelopes lying on his table. After each test the pictures were affixed at the Institute to specially designed forms on which the name and number of each child had been entered. With the aid of these forms the number of correct guesses was worked out for each child separately.

The children were instructed what to do by means of a fairy tale, which the leader of the class told them before the test began. The story told of a princess who had a book full of pictures which had been mixed up by the wind. There was also a good fairy (whose rôle was played by the leader of the class). As she related the story, the leader showed the children the toys as well, thereby making it clear to them that they had before them miniature pictures of these toys (30 pictures in all of each of the five different toys). The leader of the class also showed the children the "sealed" book, which she did not open until she had disappeared from view behind the screen to play the rôle of the good fairy. It is hardly necessary to say that a different book was used for each test, so that each time the teacher found the pictures arranged in a different order. The books were on the loose-leaf principle so that the order could easily be changed each time at the Institute. During each test Miss Louwerens sat at the back of the class and observed the children's behaviour.

In all, 28 kindergarten teachers and 1,188 infants took part in these tests, which were spread over 15 schools and 28 classes. Since every child had to make 25 guesses, the total number of guesses came to 29,700.

The statistical elaboration of the material obtained (on which Ir. J. H. Makkink, senior scientific assistant at the Technical University at Delft, lent his co-operation), showed that together the 1,188 children had produced so large a number of correct guesses that the chance of this number having to be ascribed to coincidence was practically nil.[9] A notable feature here was that this highly significant result was obtained through the participation of the 587 girls in the tests. The Critical Ratio in their case was + 8.40, whereas the 601 boys achieved a Critical Ratio of only + 2.20. As will appear further on, a certain Mr. van Busschbach also found that these tests show a sex difference where young children are involved.

Miss Louwerens repeated the tests described above in a number of classes, 10 in all, making each test a few days after the other. In this second test, she herself took the place of the teacher, the latter sitting in Miss Louwerens' place at the rear of the class. The aim of these repeat tests was to see if it made any difference to the children whether the teacher, with whom they were familiar, or someone else, strange to them, looked in the book. If we compare the results of these two series of tests we find that there was, indeed, a striking difference, and this strengthens us in our conviction that the positive significance of the first results may be attributed to a telepathic contact. In the tests in which a stranger acted as the "agent" altogether 420 of the children were unable to produce sufficient correct guesses for these to be characterized as significant (C. R. + 1.54; P = 0.0618.)

Miss Louwerens also did research on the personality structure of the children's teachers. She did this because it had been found that some of these teachers produced a very high number of correct guesses, while the results obtained by others did not exceed the coincidence average. There are reasons for assuming that teachers whose behaviour bears witness to great sensitivity to the thoughts and feelings of others and to little egocentricity, teachers of whom one is inclined to say that they are "motherly persons" on the grounds of the attachments they induce, may be characterized as good "agents".

About the year 1950, Mr. J. G. van Busschbach, a State Inspector of Elementary Schools in Amsterdam, decided to conduct tests with schoolchildren. As was the case with Miss Louwerens' inquiry, this one was also concerned with the question as to whether, with the aid of the statistical method, it was possible to demonstrate the existence of a telepathic relation between teachers and pupils. The reports of these investigations, published in various volumes of the Dutch Journal of Parapsychology, show that van Busschbach's experiments also produced positive results, and that there was a great degree of correspondence between Miss Louwerens' investigations and his. In the tests Mr. van Busschbach carried out with children in the first form at elementary schools in Amsterdam and Dordrecht, the girls produced more correct guesses than the boys. In contrast to this, tests made involving pupils in the highest forms of elementary schools in Amsterdam and Utrecht no longer threw up any noticeable difference based on sex.

It is important to mention here that Mr. van Busschbach was given an opportunity to carry out his tests with American schoolchildren as well, being invited to do so by Duke University, Durham, N. C. The results of these American tests run completely parallel with those of the tests made in the Netherlands.

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[9] The C(ritical) R(atio) amounted to + 7.47, which means that the chance of the number of correct guesses obtained having to be attributed to coincidence (P) is smaller than 1 in a milliard (P = < 0.000,000,001). By the Critical Ratio (C.R.) we mean the deviation from the average number of correct guesses that might be expected according to probability calculus, divided by the standard deviation. The higher the C.R., therefore, the slighter the chance of the results obtained depending on pure coincidence. According to Rhine and his school a C.R. of + 2.6 should be regarded as of adequate significance, which means that a C.R. of + 7.74 must be regarded as very high indeed. We understand by the term "standard deviation" a standardized deviation of the chance curve within the limits of the possibility of coincidence.

We by no means confined our experiments with psychoscopists and the like to the assembling of data on their paragnostic achievements, but also investigated their personality structure. As early as 1920 Professor Heymans had indicated the need to carry out extensive personality research on people known as telepathists and clairvoyants. Around 1926 I began collecting as many data as possible from biographies and autobiographies of paragnosts, to enable myself in this way to form a picture of their personalities. In addition, I contacted persons who were well acquainted with paragnosts and requested them to answer characterological questionnaires.

The foundation of the Institute of Parapsychology in 1953 provided me with the opportunity to conduct my inquiry into the personality structure of paragnosts more systematically, and also to intensify and extend this research. Between January 1954 and March 1957 a total of 47 persons with the reputation of being paragnosts were subjected to extentive tests at the Institute, with the aid of a carefully selected test battery. The results of this psychodiagnostic research are at present being published in the Journal of Parapsychology.

As we have already remarked, a large number of Dr. Kooy's dream images showed a striking associative relationship to a painful loss he had suffered, and I now discerned something of the same nature in my research on psychoscopists. Among various of their number I detected striking cases of specialization, which very often proved to be associated with experiences they had gone through during their youth. Thus it proved, for example, that a paragnost who had repeatedly succeeded in furnishing correct information about a lost child (who, as it turned out, had been drowned) had himself almost been drowned when he was eight, an experience which had brought about a psychic trauma. If this same paragnost were consulted regarding thefts, he proved to be handicapped by marked inhibition. Further investigation brought to light that his father had been an admirer of the French socialist, P. J. Proudhon, according to whom all property was based on theft. Although the paragnost by no means subscribed to this view, his father's teaching still had an effect on him and caused this inhibition, when he was consulted on cases of theft. I noticed exactly the opposite with another psychoscopist, and in his case, on further investigation, it transpired that at the age of 17 he had been unjustly suspected of theft by his father.

A third person, of homosexual inclination and with a tendency to suicide, proved to have a special capacity for furnishing ideas with regard to sexual aberrations and cases of suicide. Investigation of these forms of specialization have led me to conclude that in the case of a very large number of paragnosts we meet with an endeavour to discover oneself in the other person. Although by no means identical with it, this autistic urge is nevertheless related to projection.

The above account may have shown that we have also undertaken research into the practical significance of paragnosia. In 1957 a book of mine was published in Utrecht, entitled *Over het gebruik van paragnosten voor politiële en andere praktische doeleinden* (On the Use of Paragnosts for Police and other Practical Purposes). As the title suggests, in this book I have dealt, *inter alia,* with the question as to how far paragnosts can, under certain circumstances, supply information of use to the police. From the inquiry I carried out among a number of well-known psychoscopists, it came to light that, although paragnosts proved able to furnish such information in some cases, generally speaking their results were disappointing from the police point of view. This does not, however, alter the fact that information, useless for police purposes, must sometimes be taken as being extremely important from the parapsychological point of view.

Finally, let me mention here that our Institute has also undertaken a study of the question of "healers". It may be regarded as a remarkable fact that in our day, when the science of medicine is celebrating great triumphs, there should be a marked increase in visits to natural (magnetic) healers and faith healers. An inquiry carried out by our Institute in conjunction with the Sociological Institute of Utrecht University has shown that almost one quarter of the inhabitants of Utrecht at one time or another employs the services of such healers. That the number of visits to these healers is much larger than many people think in other countries as well came to light at an international conference, held in April, 1954 at Saint Paul de Vence in the south of France. [10]

Since we are concerned here with a social problem of great significance to public health, and since these healers undoubtedly include persons with a certain degree of paranormal talent [11], we have felt obliged to concern ourselves actively with the problem, in co-operation with the medical profession. It also appears that we may be assured of support in this matter from a number of members of parliament. Many people rightly see that research of this kind will on the one hand make an important contribution towards combating quackery efficiently, while it will also prevent us throwing away the baby with the bath water. For it is certainly difficult to deny that, here and there, useful work is being done by unqualified persons which deserves the attention of the doctors.

W. H. C. TENHAEFF [12]

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[10] See *Proceedings of Four Conferences of Parapsychological Studies*, Parapsychology Foundation, New York, 1957.

[11] See my *Aussergewöhnliche Heilkräfte* (Extraordinary Powers of Healing), Walter Verlag, Olten, 1957.

[12] Professor W. H. C. Tenhaeff is professor extra ordinarius at the State University at Utrecht and Director of the Institute of Parapsychology in the same university.
See also Vol. III, no. 1 of this Bulletin, p. 33.

CHRONICLE

UNIVERSITY NEWS

State University at Leyden

Plans to introduce a "general" bachelor's degree

The Netherlands' oldest university is considering the introduction of a three-year course of university training leading to a bachelor's degree. The course is not intended as an "abbreviated specialist course" nor as a formal introduction to more advanced study, but will be of a general educative character. It will be a separate, independent course of academic training and not, therefore, a propaedeutic course or "studium generale", though it will, in essence, bear some relationship to the latter. During the first year the student will be acquainted with the material treated by all three main faculties, i.e. the cultural-historical, the sociological and the natural science faculties, while in the last two years he will specialize in one of these. A separate system of inter-faculty organization will be set up for the purpose.
In December, 1958 the Senate committee appointed by Leyden University to study this matter submitted a draft plan, after which a press conference was called in February last. In contrast to the position in many other countries, the introduction of a general bachelor's degree would be a new departure for the Netherlands, and the idea of calling this press conference was to enable the senate and board of governors to see what the response in the country would be, before putting the plans into execution.
In the next issue of this bulletin we hope to include an article from a fully authorized source, supplying more details regarding the motives behind the plan and the possibilities and opportunities that lie open to an important new extension of university education of this kind in the Netherlands.[1]

5,000th student enrolled for the academic year, 1958/59

For the first time in the 384 years of its existence Leyden University has enrolled its 5,000th student in one academic year. It was recalled on the occasion that shortly after its foundation the university had more professors than students, i.e. 18 as against 16. At the moment 194 professors give lectures at the university. It was in 1916 that the number of students enrolled first reached the 1,000 mark; the 2,000 mark being reached eleven years later, the 3,000 mark in 1947 and the 4,000 mark in 1949. So it has taken ten years to add another 1,000 and reach this latest milestone.

Parasitology Laboratory

On February 20 last the new Parasitology Laboratory at the University of Leyden was opened. Parasitology was incorporated as a department of Tropical Medicine in 1920, with the Institute of Tropical Medicine as headquarters. With the appointment, after the war, of Dr. P. H. van Thiel as professor of parasitology, this special branch of medicine acquired the status of an independent science.
The new laboratory, which offers very fine accommodation, is also of a temporary nature, however; for the intention is to house all the various branches of medical science under one roof, in the medical centre planned for construction on a site behind the Academic Hospital at Leyden. But this plan will require several years for its completion.

New Radiology Pavilion

The inauguration of the new pavilion of the Radiology Department of the Academic Hospital at Leyden on March 7 last was a step in the direction of the hospital's modernization. At the time of its foundation the Academic Hospital was equipped according to what were then the latest requirements. But science progresses rapidly, and since every day people come from all parts of the Netherlands – and from distant places abroad – for treatment there, the hospital regards it as a duty to ensure that equipment, both technical and therapeutic, is kept as up-to-date as possible. The Radiology Department works under the direction of Professor Dr. J. R. von Ronnen.

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[1] For a description of the present system, see the June 1958 (Vol. II, No. 2) issue of this bulletin, pp. 11–13.

State University at Groningen

Technical Science Courses for the first time at a non-specialist Netherlands University

For the first time in the history of the Netherlands Universities a section of advanced technical training has been included in the curriculum at a Netherlands university not among those specializing in technical science. That is to say, courses are now being provided at the State University at Groningen which in nature and scope are comparable to the courses followed at a Technical University by prospective candidates for the engineer's degree in the branches of mathematics, natural science (physics) or chemistry. The three new courses lead to a "doctoraal" examination (and not, therefore, to an engineer's, as at the Technical Universities) in applied mathematics, physical technology and chemical technology, which opens the way to the doctor title. It is worthy of mention that in the courses at the University of Groningen, the "candidaats" examination (the first examination taken, after three to four years' study) is the same as that for the already existing "doctoraal" course in pure mathematics, physics and chemistry, so that the student is enabled to make his choice between pure or applied science at a juncture when he is fully aware of where his particular talent and inclination lie.

State University at Utrecht

Inauguration of the Analytical Chemistry Laboratory

On March 5 last the new analytical chemistry laboratory at the State University at Utrecht was opened by the Minister of Education, Arts and Sciences. The laboratory has been planned to accommodate 120 first-year students, while 350 students in all will be making use of it daily. 200 of these will be chemists, while the remainder will come from other faculties whose students receive theoretical and practical training here in preliminary chemistry courses.

Besides providing accommodation for instruction in various subjects, the new laboratory will also serve for the purpose of pure and applied research in the analytical and physical-chemistry fields, while, combined with the adjoining organic chemistry laboratory, the new premises will be suitable for holding congresses and symposia. The building includes staff rooms, offices, a library and smaller and larger lecture halls. A special system of ventilation makes it possible for the air to be conditioned in every room in a maximum of 10 minutes.

University of Amsterdam

327th *Dies Natalis*

On the occasion of the celebration of the University of Amsterdam's 327th *dies natalis*, Dr. A. M. J. F. Michels, professor of experimental and technical physics in the university, followed his adress on molecular physics with some remarks on the problems involved in the combination of scientific research and university training. In the interests of the student, of science and of society, the university must not be allowed to degenerate into a collection of technical colleges. Too specialized an education would not equip the student satisfactorily for later life. Another danger was that the student may be given too much of the routine research work to do, being used as "cheap labour". The university should be enabled to carry out its educational task properly.

Free (Reformed) University of Amsterdam

New clinics, hospital and laboratories

The Free University of Amsterdam's sixth faculty, the medical faculty, is on the way to completion. A twelve-storey hospital is rising in Amsterdam, which will be coming into operation in three years' time and which will comprise, among other things, a 700-bed clinic and accommodation for teaching, specialization, laboratories, lecture halls, living accommodation for part of the personnel and outpatient clinics. At the moment the last-mentioned are temporarily housed in non-permanent buildings (arranged and equipped on modern lines), the obstetrical and gynaecological, the children's, and the eye, nose and throat departments having been inaugurated this year. On the same site, where all the Free University's new buildings are being constructed, it is also hoped to begin this year on the building of five-storey accommodation for the physics and biology laboratories, the plan allowing for the further extension of this building at a later date.

Roman Catholic School of Economics at Tilburg

It is now thirty years ago that the Roman Catholic School of Economics at Tilburg first opened its doors.... to two dozen students. A short time ago the thousandth student sat for his "doctoraal" examination at the school. During the academic session held on the occasion of the celebration of the 31st *dies natalis,* the Rector Magnificus, Professor F. J. H. M. van der Ven, delivered an address on "Assessing the Value of Brain Work and Manual Work in a Changing Pattern of Culture." The speaker referred to the fact that the idea of human equality had brought about an adjustment in the idealized view of freedom, also where work was concerned. The social indispensability of all forms of work has narrowed down the wide gap that previously existed in our estimation of the value of the higher and lower grades of work. An examination of the classical (particularly the Roman) ideas on work and labour conditions and relations teaches us that these ideas were closely bound up with an ideal of personal freedom and intellectual status that has by no means the same validity nowadays. Moreover, we must bear in mind that sources of our information in this matter reflect a limited, "official" view only. It is chiefly due to the system of labour in modern society, a system which comprises almost everyone and which has taken the place of a system based on property-holding, that manual labour has come to be looked upon as more important than ever was the case previously.

Provincial Committees Urge Decentralization of Higher Education

Since the building of a second technical university in the Netherlands, that at Eindhoven in the province of North Brabant, which has now completed its second academic year and is destined in the course of time to enrol 2000 students every year, provincial committees in other parts of the country have stressed the desirability of the further decentralization of higher education in the Netherlands,[1] bearing in mind, among other things, the large increase in the number of students to be expected. Mention was already made in our last issue of the proposals for a new university at Rotterdam (Vol. III, no. 1, pp. 26/27).

There are indications that the next step will be to found a third technical university in the east of the country. Some time ago, a foundation for the promotion of higher technical education in the northern and eastern provinces appointed a committee of three professors to study this question, two of them being sociologists and the other a technologist. In April 1959 this committee published its second report, recommending the establishment of a technical university that would provide courses in mechanical engineering, chemical-technological, electrotechnical and technical science. Facilities would also have to be provided for the further study of the problems confronting the works engineer, by means of lectures in social science. This socio-technological university would, then, have to assist in the work of absorbing the very large stream of students of technical subjects expected in five years' time. The official recommendations envisaging the establishment of this third technological university will be submitted to the Minister of Education before the year is out.

The town most in the news as the prospective home of the new university is Enschede, the centre of the textile industry in the province of Overysel, a choice also favoured by the said committee. An important aspect of these plans is the interest being shown in them by the Germans. A similar need is felt in the neighbouring German North Rhine-Westphalia region, and it is reported that the West German textile industry might be inclined to lend its financial aid, providing instruction in the proposed new university were to be in both Dutch and German. Together, the two areas form the largest textile centre in Europe, and co-operation in this field could make an interesting contribution to European integration.

Zwolle, capital of the same province, Overysel, is in the meantime exerting its efforts to get a university of its own established there, to accommodate its own students and those from the surrounding provinces. At the moment the idea would be to provide courses mainly in what are known as the "gamma" subjects, i.e. economics, political and social science, psychology and geography, though with the possibility of studying new subjects within this framework, subjects attuned to the new needs of society, such as demography, planology, social planning, administrative science and business organization.

In the province of Limburg a committee published a report in February last on its study of the desirability of founding an institute of higher education in Maastricht, the southernmost town in the Netherlands. What this committee recommends is the provision of basic university training leading to the "candidaats" examination (an intermediate examination) after which the students would continue their study elsewhere in the country. For the time being four faculties are envisaged, i.e. law, art (classical languages, Dutch, modern languages and history), the western social sciences (possibly including psychology) and, conceivably, mathematics and chemistry, the last in view of the enormous expansion of the chemical industry in South Limburg. It is proposed that a beginning should be made in 1963, and according to conservative estimates, four to five thousand students could be counted upon. Maastricht is an old, historical town in the immediate vicinity of Aachen (Aix-la-Chapelle) in Germany, and of Liège, in Belgium, and has the reputation of being very "European-minded".

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[1] Existing Netherlands Universities etc. will be found listed on the inside back cover of this bulletin.

In the furthest north of the country a Frisian provincial committee is urging the establishment of a university comprising all the normal faculties (exclusive, therefore, of the technical, agricultural and veterinary faculties) in Leeuwarden, the capital town, lying in the centre of the province. In its report, published last March, this committee declares that the founding of such a university would have no real detrimental effect on the university in the neighbouring province of Groningen, nor on any university that might possibly be founded to the south, in Zwolle. The social and economic trend in Friesland points to the need for the province to acquire a university of its own. Constant efforts are rightly being made to expand industry in this province, but these efforts are hampered all too often, the committee reports, by the lack of sufficient academically-trained persons who could provide the necessary leadership. Greater facilities must be offered to those living in the locality who are capable of profiting by a university education. It would make the province more attractive to settle in, a fact which would, in turn, increase the incentive to set up new industries or branches of large concerns in the area.

The provincial committee in Gelderland has not failed to come forward with proposals either. This committee has compiled a report recommending that Arnhem should become the home of a new university, possibly one with extra departments to provide facilities for technical research.

Finally, Rotterdam, too, has its plans, as was mentioned earlier on. As one might expect, opinion in the country on all these proposals is divided, and it still remains to be seen whether any of these plans will actually materialize. In any case, it can certainly be said that there is no lack of ideas in the Netherlands at the moment concerning the decentralization of higher education. The editors of this bulletin will be keeping readers informed from time to time of any outstanding developments in this field.

RESEARCH

Netherlands Organization for the Advancement of Pure Scientific Research

It was announced by the Netherlands Organization for the Advancement of Pure Scientific Research (Z.W.O.) at the end of January last that it has granted subsidies to an amount of Dfl. 6,300,000 for scientific work in the year 1959.

The greater part of this sum, namely, more than 4 million guilders, is earmarked as usual for the Foundation for Fundamental Research on Matter (F.O.M.), and represents an increase of 20 per cent. on the amount received by the F.O.M. in the previous year. The subsidy has been increased to enable the F.O.M. to continue its nuclear and other researches commenced during the past few years, and to undertake investigations in two fields that have recently been added to its scope of activities, i.e., research on solid matter and the fusion of light nuclei.

Once more substantial subsidies were accorded to the Mathematic Centre at Amsterdam, the Foundation for Chemical Research in the Netherlands (S.O.M.), the Foundation Radio Radiation of Sun and Milky Way, which is operated in Dwingelo by the Radio Astronomical Observatory, and some other organisations, while furthermore a large number of smaller subsidies were granted.

Sixty-five subsidies were extended in the field of spiritual sciences, including several up to a substantial amount for researches in the domain of psychology, sociology and economics, to which the Z.W.O. has been paying more attention in recent years.

Twenty-three subsidies were extended in the medical field and thirty in the biological field. With respect to the exact sciences, mention is made of a subsidy to establish a large international observatory in the Southern Hemisphere, and another to equip an expedition to the Canary Islands which will observe the total eclipse of the sun on October 2nd.

Besides the above subsidies the Z.W.O. has again set aside a substantial amount this year for the promotion of contact between Dutch scientists and scientific researchers in other countries, in the realization that for the development of scientific research in the Netherlands it is necessary that promising young research workers spend some time abroad. For this reason the Z.W.O. extends grants on a fairly large scale for short study trips, scholarships for terms of a few months at foreign institutions, and stipends to enable carefully selected researchers to undergo further training in their own scientific domain.

INSTITUTIONS

The Institute of Social History at Amsterdam

The International Institute for Social History at Amsterdam has received a gift of 345,000 dollars from the Ford Foundation in America. Two-thirds of this sum are to be spent on cataloguing the printed works, totalling approximately 225,000 volumes, and on arranging and inventorying the Institute's archives. A third part of the gift is set aside to replenish the collection and make it more accessible for scientific usage.

The catalogue previously in existence was lost during the war. When these activities are completed, which, according to Professor Dr. A. J. C. Rüter, Secretary of the Institute, will take approximately five years, persons interested will be able to find their way more readily in the extensive documentation material housed in the building on the Keizersgracht in Amsterdam.

The Amsterdam Institute, which is subsidized by the State, the Municipality and the Central Life Insurance Bank, together with the Institute for Marxism and Leninism at Moscow, is the largest specialized collecting centre for social historical data in the world. It contains, for example, the complete Marx-Engels archives, of which Moscow owns only a copy. Furthermore there are the letters of Kautsky and an archive of the social historical history of France since 1789. During the war part of the archives were transported to Poland and all the books were sent to Germany. Three years ago these archives, comprising 23 tons of papers, were returned to Amsterdam from Poland. At the present moment the Institute is in the course of preparing 25 social historical editions.

TNO

In the September 1957 issue of this bulletin an extensive article was devoted to the Central Netherlands Organisation for Applied Scientific Research T.N.O., which commenced operations in 1932 under the TNO Act. To what extent the scientific researches of this national organisation have since developed is evident once more from the latest edition of the TNO Guide (1958), which is published in English and gives a most informative survey of its wide-spread activities.

A short summary of the history of the TNO appears in the introduction to the guide, and the intricate structure of this body, with its many research institutes, its committees and departments, is graphically represented. The TNO has become indispensable to the Netherlands. It promotes, co-ordinates and carries out applied scientific research itself, and that these activities are covering an ever wider ground it quite clear from the contents of the guide, in which all these institutes and committees are briefly elucidated. Each section contains basic data, such as direction, address, purpose, publications, research objects, etc.

The TNO Guide 1958 is obtainable on application from:

TNO Central Office
12 Koningskade
The Hague, The Netherlands.

INTERNATIONAL COURSES

Institute of Social Studies, The Hague

Forthcoming Courses in Public Administration and in Economic Planning

Applications are invited for the Six-month Courses in Public Administration and in Economic Planning, which will be held at the Institute of Social Studies, The Hague, from January to July 1960.

The *Public Administration Course* concentrates on administrative problems of areas which are undergoing a process of rapid development. The course is open to administrative officials with a solid university background and at least three to five years' experience in the policy-making grade of the civil service. Staff members of Institutes of Public Administration can also be admitted.

The curriculum of the course is divided as follows: (a) a period of concentrated lectures on basic principles and tools of public administration; (b) a research period in which teams of students study particular problems of administration by research and interviews with experts in the field, and (c) a period of seminars. Moreover, excursions are organised to acquaint students with certain important developments of public administration in the Netherlands and some other countries in Western Europe.

The *Economic Planning and National Accounting Course* deals with the different methods which can be used to arrange economic data for purposes of economic policy. Special attention is paid to the question to what extent these various methods can be applied in low-per-capita-income countries and in rapidly expanding economics. It is tried, therefore, to analyse the special problems connected with the latter.

Participants are expected to possess a thorough knowledge of theoretical economics; they should have academic standing at graduate level. In addition, a basic knowledge of mathematical statistics is required. Preference is given to candidates who have practical experience in economic planning, national accounting or statistics.

The faculties of both courses are composed of staff members of the Institute, Dutch and foreign experts, and Dutch and foreign guest professors.

Successful participants of the courses will receive a diploma.

For any further information, write *before September 1st*, 1959, to: The Rector, Institute of Social Studies, 27 Molenstraat, The Hague.

Closing Fourth International Course on Small-scale Industries

The Fourth International Course on Small-scale Industries came to an end in the auditorium of the Technological University at Delft on April 28, 1959. On this occasion twelve participants from four different countries received their diplomas. These courses are organised by the Research Institute for Management Science at Delft in collaboration with NUFFIC.

The formal meeting of faculty, board of governors, participants, authorities and interested onlookers was presided over by Ir. Yap Kie Han, director of the Research Institute for Management Science. The first speaker was Professor Dr. W. Brand, professor of state economy of non-western civilized territories at the State University at Leyden.

Professor Brand by means of two examples pointed out the importance of good business management. In a study on "The Expansion of the American Economy over the Period 1870–1953" it is stated that "four-fifths of the growth is attributed to improvements in national efficiency." In Januari 1959 "Mr. Krushchev announced that from 1959 to 1965 a growth in industrial production in the Soviet Union is expected of about 80 %. It is evident that an improvement in the organisation of enterprises is one of the most important elements in attainting the desired increase." Speaker contended that "low-income countries would do well to pay at least as much attention to the efficiency of production as to the increase in capital stock and labour force. They should try to introduce as quickly as possible the methods existing and being developed in the industrial countries to improve the quality of their people as productive agents." Speaker ended by expressing the hope that "the students graduating today would become the promotors of a drive towards better industrial organisation and production in their own countries. The Research Institute stands ready with advice on how obstacles can be overcome."

Mr. Quik, Director of NUFFIC, congratulated the participants on their study achievements and expressed the hope that they would also maintain a regular contact with NUFFIC.

Ir. W. Prey, Director of Studies, presented the diplomas, whereupon one of the students spoke a few words of thanks on behalf of all the participants. The formal meeting was concluded with a reception.

Meanwhile, the Fifth International Course on Small-scale Industries opened on May 8, 1959, with students from six countries taking part.

International Course on Building Closed

On April 21, 1959 the First International Course on Building, which opened in October 1958, was brought to an end in the Building Centre at Rotterdam. This course, attended by ten participants from Poland, Columbia, Mexico, India, France and Greece, was organised jointly by the Building Centre, the Organisation for Applied Scientific Research and the Institute for Housing and Town Planning. The programme comprised a theoretical and a practical part. Prof. Dr. J. P. Thijsse, member of the board of directors, presented seven diplomas, three participants having already departed. The leader of the course, Mr. F. C. Verschoor, gave a survey of the course, which had dealt with various problems in the field of building. A second similar course is to commence in October, next.

INTERNATIONAL SCIENTIFIC MEETINGS

Cleanliness in Space Travel

Under the chairmanship of the Leyden astronomer Professor H. C. van de Hulst, a number of scientists from different countries assembled in The Hague in March to draw up regulations relating to cleanliness in space travel.

Together the participants, who represent such diverse branches of science as biochemistry, biology, physiology, chemistry and physics, form the Committee on Space Research, COSPAR, one of whose tasks it is to prevent great scientific damage as a result of the exploration of space. COSPAR promotes on an international level all kinds of scientific researches which are carried out with rockets or rocket-propelled vehicles.

Dr. P. Alexander, the London biologist, stated at a press conference that there is a possibility that the planet Mars contains life. And it would be a scientific tragedy of the first order if man, as soon as he lands on Mars, would no longer be able to determine whether the life, present on this planet, came into being on Mars itself or was brought there by space vehicles from the earth. No definite ideas exist as yet about the sterilization of space vehicles which will eventually reach Mars, and the purpose of the meeting was to contribute to the solution of this problem.

Experts in Stress Analysis Convened at Delft

In April the international congress of the "Stress Analysis Group of the Institute of Physics" of London was held in the Technological University at Delft, the first of these meetings to be held outside England The congress was opened by the Delft Professor C. B. Biezeno, who mentioned among others, the scientific contributions to this congress from Belgium, Denmark, England, France, Poland, Rumania, Russia, Switzerland and the Netherlands. The programme comprised 52 discourses and four general lectures. The first lecture was given by Vice Admiral H. H. de Leiris, of the Marine Nationale of Paris.

36th (Netherlands) Physical and Medical Congress

More than three hundred participants convened for three days in Rotterdam at the end of March for the 36th Physical and Medical Congress, which this time was devoted to the method in science. This national biennial congress was opened in the auditorium of the Netherlands School of Economics at Rotterdam by its chairman, Professor O. Bottema of Delft.

The specialization which has become essential in science and which indubitably, through the work of the individual or team, enables progress to be made in a certain direction, progress which otherwise would be ruled out, also presents serious disadvantages. Among them is certainly the fact that every scientist must digest and investigate so much in his own relatively limited field that it is virtually no longer possible for him to pay attention to branches of science which, though of value to him, yet fall outside his ever narrower horizon.

This is also the cause of the internationally observed phenomenon that scientific societies which do not confine themselves to a highly special domain must carry on a difficult struggle to justify their existence. This also applies to the Physical and Medical Congress society, which organises a scientific reunion every other year in a domain covering at least two university faculties.

It is therefore certainly to be applauded that the present board, led by Professor O. Bottema, completely ignored the existing fences and dams and, by means of a revolutionary trend, lent a wholly new aspect to the 36th Congress. The board, in fact, decided to abolish entirely the system of sections and subsections in existence heretofore. This time only meetings were held with lectures meant for all congress members and this time also the search for central themes, recognisable on earlier occasions, was carried through more consistently since one single subject, namely, the method in physical and medical science, was chosen for discussion.

At this congress speakers who were invited to take the chair successively dealt with the method in mathematics, in biology, in medicine, in physics, in pharmacy, in chemistry and in geology. To Professor J. F. Schouten of Eindhoven fell the difficult task of subsequenty giving a synthesis of the various discourses held. Professor Schouten began by pointing out – and he readily used this simile in Rotterdam – that in science, too, are distinguishable the straight coursers, the middle coursers and next to them a group which depends on compromise. He believed the natural sciences could be grouped in such a way that from the straight coursers, via the middle coursers he came to the compromisers, and for this he chose the sequence: logic, mathematics, physics, chemistry, astronomy, geology, biology and medicine.

Whatever the method of these different sectors, yet everywhere is noted the existence of a cycle which, starting with the experiment for example – to be subdivided into "naked" experiment and experiment-with-action – comes to the observation, then via description to planning and mathematics, then through this possibly to empirical rules, then via induction to a postulate, and then via deduction to the experiment again. It goes without saying that this cycle can also commence at an entirely different point. Summarising, Professor Schouten contended that there is no universally applicable method in science, but that this is conditional upon numerous factors and that it is wrong to define a science in view of the methodology used thereby.

Netherlands Students Assembled at Brussels

The fifth Union Congress, attended by two hundred Flemish, South African and Dutch students, was opened in Brussels on February 26th. The principal objective of these congresses is to promote the cultural unity of all Dutch-speaking students. This year the two main subjects were "South Africa" and "The University in a Technical Society." Although an examination of the social stratification of Flemish students and the task of the student organisations were also extensively discussed, this article is confined to the subject "The University in a Technical Society."

An elaborate report drawn up by the Dutch Students' Council was handed to the participants before the meeting. It contained a study of the development and place of the university in the community and contended that the university, originally an ecclesiastical institution, is gradually becoming a state institution and in the next decades of this century will become a social institution. University and society are becoming more and more deeply involved with one another. Moberly pointed out that the influence of the successes of the applied sciences on the university not only relates to that with which higher education is to occupy itself, but that the whole intellectual climate of the university has been thoroughly changed thereby. The new culture, the basis for which was laid by the industrial revolution, has hollowed out the liberal university principle and has given rise to a new, albeit not entirely identified and acknowledged type: of a technological democratic character, highly empirical and analytically disposed, selective in the sense that a sharp distinction is made between fields of science and methods promising practical results and those which do not.

The concomitant mentality of teachers and students is characterised by a concentration of interest on what is socially useful, a strongly developed sense of power and an optimistic disposition with regard to the possibility of solving along scientific lines the problems society is struggling to overcome. Moberly went on to say that the influence of "technological preoccupations" coincides with another, namely, that of a modified structure of the student population, with all the advantages and disadvantages attached thereto.

In his speech entitled: "The Social Assignment of the University" Professor A. Dondeyne of Louvain University touched upon this matter. We have come to a renewal of the concept "general welfare" he said, to a social economic democracy; the state is presenting a more scientific, a more technocratic picture. Social economic democracy and political democracy must complement each other. Referring to the task of the university in the changes, he remarked that in his opinion a true university should have the character of a general study where all sciences merge and promote a general development, and each separate science enjoys the necessary autonomy. Only then is universalism no idle word; there a universal humanism prevails wherein, through daily contact with science and society, a better insight is gained; the attitude of mind not of the "technicalized" but of the well-balanced individual. Will this humanism be an "Esperanto humanism" of a utility character, or a humanism of mutual respect of academicians with a university training?

From the discussions the following day it was clear that the speakers were acutely aware of the controversy: socialization of science or science as a basis to serve all sections of the community. The first conception was unanimously rejected and the interference of bodies entering into higher education without strictly scientific purposes was deprecated. Only the existence and the reserve of an intellectual elite with wide social ties can be of importance to the community in the long run.

In between these introductions and discussions personal encounters took place. As a newspaper correspondent expressed it: On the part of the Dutch student these encounters have a rather formal air. Upon arrival at Brussels he places a cautious hand in the much friendlier fists of the Flemish organisers. Casually, somewath haughtily, though not in an unfriendly way, he makes a few critical remarks about the organisation, adding one or two proposals about changes to be made. The Dutch student is unquestionably more tiring than his Flemish colleague, surprising the latter at the stamina with which he continues to introduce himself to new people, shaking hands each time anew. And so on the face of it there are scores of points where the diversity of this Union Congress is demonstrated.

Yet – according to the famous saying by Anton van Duinkerken at the Louvain Union Congress of 1954 – "people do not marry each other because they look so much alike but because they love each other." Seen in this light the alliance between North and South is not in such a bad way.

International Congress on Neuro-Biology

is to be held in Amsterdam in the second half of September 1959, by the Netherlands Central Institute for Brain Research, to mark the 50th anniversary of the Institute.

Information: Prof. Dr. S. T. Bok, c/o Nederlands Centraal Instituut voor Hersenonderzoek, 59 b, Mauritskade, Amsterdam.

MISCELLANEOUS

International Co-operation in the Humanities

English Studies, a Journal of English Letters and Philology published at Amsterdam, celebrates its fortieth anniversary this year. This journal was founded in 1919 by R. W. Zandvoort, currently Professor of English Language and Literature at the University of Groningen, and since 1936 has been edited by an international committee representing the academic study of English in the Netherlands, Belgium, Switzerland and Scandinavia.

To mark the anniversary, six enlarged issues are to be published, each with contributions from the participating countries, viz. the Netherlands–Norway–Belgium–Switzerland–Sweden–Denmark, in that order. After 1959 the publication of articles and reviews from Great Britain, the United States of America and other countries will be resumed.

75th Birthday of Professor Debije

Prof. P. J. W. Debije, emeritus professor of Cornell University, Ithaca, U.S.A. where he has resided since his retirement in 1952, celebrated his 75th birthday on March 24th.

Prof. Debije is one of the eleven Dutch Nobel Prize winners. He received this high distinction for chemistry in 1936 in virtue of his researches on the structure of molecules. He studied in Aachen, where he obtained an engineering diploma with silver medal in 1905, and graduated from Munich University in 1908, where he lectured in theoretical physics from 1910 to 1911. He was subsequently appointed professor at the University of Zurich in 1911, at the State University of Utrecht in 1912, at the University of Göttingen in 1914, at the Technological University of Zurich in 1920, and at the University of Leipzig in 1927. In 1935 he became professor in Berlin, combining this post with a function as director of the Kaiser Wilhelm Institut für Physik. In 1940 he accepted a professorship at Cornell University.

Professor Debije has received several scientific awards, including the Rumford Medal in 1931, the Faraday Medal in 1933, the Lorentz Medal of the Royal Netherlands Academy of Sciences in 1945, the Nobel Prize for Physics in 1936, the Franklin Medal in 1937, the Williard Gibbs Medal in 1949, and the Max Planck Medal in 1950. In April 1959 he received his fifth honorary doctorate, conferred by the Polytechnical School at Aix-la-Chapelle.

Death of Professor J. H. P. Bellefroid

In February 1959, on the eve of his 90th birthday, the death occured at Nymegen of Prof. J. H. P. Bellefroid, emeritus professor in the introduction to jurisprudence, of international private law, international law and the law of civil procedure at the Roman Catholic University of Nymegen. After completing his studies at Louvain and Utrecht, he taught at Liege from 1896 to 1918, and at Nymegen from 1923 to 1939. Prof. Bellefroid, who wrote many important publications in the field of jurisprudence, received Belgian and Netherlands distinctions and was also a foreign member of the Royal Flemish Academy of Sciences.

70th Birthday of Professor Halbertsma

Prof. N. A. Halbertsma, former professor extraordinary in the science of illumination at the State University of Utrecht, celebrated his 70th birthday on March 7th. Prof. Halbertsma studied and graduated at the Technological University of Darmstadt in Germany. From 1920 to 1921 he was external university lecturer in the science of illumination at the Technological University of Karlsruhe, Germany. In 1921 he accepted a post with the Philips Glowlamp Factories at Eindhoven, and from 1929 to 1957 was professor extraordinary at Utrecht. As chairman of the Commission Internationale de l'Eclairage from 1939 to 1951 –except for the black-out period during the war – he made a valuable contribution to international co-operation in the field of illumination. In recognition of his services he was appointed honorary Senator in 1952 by the Technological University of Karlsruhe in Germany.

Norwegian Honorary Doctorate for Professor Wellensiek

The Norwegian Agricultural University at Vollebeck is celebrating its centenary this year, and on this occasion is to appoint Prof. S. W. Wellensiek, professor of horticultural plant breeding at the Agricultural University of Wageningen, doctor agriculturae honoris causa, in recognition of his exceptional services to promote the science of agriculture. The formal presentation of the diploma will take place during the centennial at Vollebeck on September 5th.

French Distinction for Professor Asselbergs

On March 18th, on behalf of the French Ambassador in the Netherlands, Prof. E. Ch. D. Guilhou, President of the Institut Français at Amsterdam and professor extraordinary of French Language and Literature at the Municipal Univerity of Amsterdam, presented Prof. W. J. M. A. Asselbergs with the Palmes Académiques. This special French distinction was awarded to Prof. Asselbergs in recognition of his great services to French culture. Prof. Asselbergs, who is professor of Dutch and General Literature at the Roman Catholic University of Nymegen, is known in the Netherlands and outside as the author of many literary works, written under the pseudonym of Anton van Duinkerken.

100th Anniversary of the Birth of the Philosopher Husserl

On the occasion of the 100th anniversary of the birth of the philosopher Edmund Husserl (born on April 8, 1859), several lectures were given at Groningen on April 27th last, on Husserl's phenomenology. Speakers were: Prof. Ludwig Landgrebe, professor of philosophy at Cologne and former assistant to Husserl, on "The Central Problem of Husserl's Phenomenology"; Prof. S. Strasser, professor at the Roman Catholic University at Nymegen and former collaborator on the Husserl archives at Louvain, on "Husserl's Struggle against the 19th Century" and Professor C. A. Peursen on „Phenomenology and the Future of Philosophy."

Guest Lectures by Prof. K. Rahner at Nymegen

Within the framework of the Netherlands-Austrian Cultural Convention, Prof. K. Rahner of Innsbruck University delivered a series of guest lectures at the Roman Catholic University at Nymegen on March 2, 3 and 4, 1959. The topic of the lectures was: "The Secret as the Fundamental Idea of Theology."

Dr. Leavis from Cambridge at Nymegen

Within the framework of the Anglo-Dutch Cultural Convention, Dr. F. R. Leavis of Downing College, Cambridge, gave three guest lectures at the Roman Catholic University at Nymegen on March 10th and 11th, last. They were entitled: "The Idea of Literary Criticism", "T. S. Eliot as a Critic" and "The Americanism of American Literature."

LIBRARIES AND MUSEUMS

The Library of the Agricultural University at Wageningen

The library of the Agricultural University at Wageningen is not only a university library, it also tends to the needs of the whole agricultural centre of Wageningen and, in addition, has a task as national agricultural library. In regard to its size, it is comparable to the Agricultural Library of Cornell University. Only the library of the Department of Agriculture in Washington and that of the Food and Agricultural Organisation in Rome are larger in this respect. For the visitor to Wageningen it is important to know that besides the normal media (alphabetic catalogue, systematic catalogue, photocopy department, etc.), the library has a number of special facilities at its disposal, which are dealt with point by point below.

1. *Source Register*

In this register are assembled titles of bibliographies, manuscript bibliographies and manuscript title lists, printed bibliographic material and general bibliographic data. The manuscript material is obtained by an international exchange with other agricultural libraries. For the purposes of this exchange the literature statements prepared in the Wageningen library are typed on transparent paper, enabling diazotype copies to be quickly provided on application. The exchange itself is made by means of a three-monthly statement in the Quarterly Bulletin of the International Association of Agricultural Librarians and Documentalists of the lists drawn up during the past quarter.

Apart from diazotypes, data from this source register is also made available in the form of transparent microcards.

2. *Documentation*

The Documentation Department of the Foundation Centre for Agricultural Publications and Documentation is housed in the library premises. The work of this department corresponds closely with that of the library, and the existence of this section makes it possible to achieve all kinds of results which are normally impossible or almost impossible in a scientific library. The department, for example, publishes a weekly journal of abstracts entitled "Agricultural Documentation." Of all the abstracts listed therein the library receives phototype cards, which formed the basis of the system described under 3.

3. *Five Years' Documentation System*

In this system are assembled different types of cards of an international library format, including: 1) cards, described under 2.; 2) cards of all abstracts appearing in "Tropical Abstracts" – a fortnightly journal published by the Royal Institute for the Tropics at Amsterdam; 3) cards of abstracts which are prepared by the Institute mentioned under 2), but for which there was no space available in Tropical Abstracts; 4) all cards of the Agricultural Section of the Library of Congress at Washington; 5) cards of the I.N.E.A.C. (Institut Nationale pour l'Etude Agronomique du Congo) at Brussels; 6) all cards of the Centre Technique d'Agriculture Tropicale at Nogent sur Marne; 7) the cards of the Agronomy Section of the Economic Information Service at The Hague.

This system is written up only for the last five years because after that most data is to be found in the journals of abstracts or in the reviews. The older issues are preserved but not in the system. Microfilms or transparent microcards can also be made of parts of this system.

4. *Literature Research*

Relying primarily on the collections of this library, literature research can be carried out within the scope of the above-mentioned Documentation Department. If they want to, readers are not only able to obtain title lists with or without annotations, but also complete literature reports. With respect to the latter the literature researcher concerned naturally works in close collaboration with the employer.

5. *Diazotype Section*

A specially developed, extensive diazotype section carries out a great many activities in behalf of the catalogues, source register and five years' documentation system. It was found that in the field of libraries and documentation this working method can be applied most efficiently.

6. *International Contact*

For the benefit of the exchange of publications, manuscript title lists and cards of abstracts, an intensive contact is maintained with agricultural libraries abroad. This contact has been greatly facilitated by the establishment of the international society mentioned above. The Wageningen library was one of the five organisations to first urge that this society be established.

7. *Publications*

The library publishes a weekly bulletin catalogue which is listed at the back of the Agricultural Documentation journal referred to above. Other publications issued are a Wageningen list of journals, a central catalogue of all serial publications and periodicals in agricultural and associated fields present in Wageningen, in the central library and the reference libraries of the Agricultural University, as well as the libraries of the autonomous institutes. Furthermore the library publishes a guide for visitors. The Documentation Department publishes the Agricultural Documentation weekly, a series of literature reviews and periodic bibliographic lists in: the "Landbouwkundig Tijdschrift", "Landbouwstichting" and the "Netherlands Journal of Agricultural Science."

8. *Instruction*

Informative afternoons on library usage are regularly organised for students. In combination with these afternoons, there are facilities to carry out practical literature research work under guidance in the library.

9. *Research*

Some research work on a modest scale is done on the application of superimposable punch cards in literature research, while at the same time part of a problem in the field of mechanical selection has been tackled.

TH. P. LOOSJES *

FOREIGN STUDENT SERVICE

Studying in The Netherlands

The Netherlands Foreign Students Service at Amsterdam has published a new, second edition of its booklet "Studying in the Netherlands." A simple yet most attractive little book, format 12 × 16.5 cm, it contains all sorts of information which may prove of value to foreign students who are contemplating a stay in The Netherlands.

The chapter "The Universities" opens with a historical introduction entitled "Origin and Background of the Universities", which is followed by a number of shorter articles on the subjects "Choosing a University" and "What Studying in Holland is Like".

The chapter "The Study" gives information regarding the "admission to the universities, subjects of study at the universities, international university institutes, other schools and institutions, practical training and summer courses."

The chapter "Student Life" deals with "accommodation and the cost of living," "estimate of expenses" and "social life."

Under "Practical Data" readers will find a wealth of brief, practical details and observations on such varied subjects as "knowledge of Dutch, passport, cash, clothes, health precaution, accommodation, banks, coins and banknotes, lodgings, laundry, meals, transport, habits and customs, churches, newspapers, sport, entertainment, paid employmate of expenses" and "social life."

A list of addresses of the "Information Offices of the F.S.S." and of the "Netherlands Diplomatic and Consular Representations" completes this exceptionally practical booklet, which is tastefully illustrated with the portraits of a number of famous Dutchmen.

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1) Mr. Loosjes is librarian at the Library of the Agricultural University at Wageningen.

DOCTORAL DISSERTATIONS

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BASIC DATA ON INTERNATIONAL COURSES OFFERED IN THE NETHERLANDS[1]

(see also the "International Courses" Section in this Bulletin)

Institute of Social Studies

Information: The Rector, Institute of Social Studies, 27, Molenstraat, The Hague.

COURSES OFFERED:

a. Two-year Course in the Social Sciences. The study of social change and economic development in the widest sense. The course leads to the degree of Master of Social Sciences.
REQUIREMENTS FOR ADMISSION: Advanced academic standing in one of the social sciences.
NEXT COURSE STARTING: September 1959. Closing date for applications: June 1, 1959.[2]

b. Six-Month Advanced Diploma Course in Public Administration.
REQUIREMENTS FOR ADMISSION: Advanced academic status and preferably some years of experience in the public service.
NEXT COURSE STARTING: January 1960. Closing date for applications: October 1, 1959.[2]

c. Six-Month Advanced Diploma Course in Economic Planning and Social Accounting.
REQUIREMENTS FOR ADMISSION: Advanced academic status and preferably some years of experience in the public service.
NEXT COURSE STARTING: January 1960. Closing date for applications: October 1, 1959.[2]

d. Seven-Month Advanced Diploma Course in Social Welfare Policy for Low Income Countries.

REQUIREMENTS FOR ADMISSION: Practical experience in social work, prefeably at the teaching and public service level.

NEXT COURSE STARTING: September 1959. Closing date for applications: June 1, 1959.[2]

Technological University at Delft — Netherlands Universities Foundation for International Co-operation

Information: Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

COURSE OFFERED:

International Course in Hydraulic Engineering.
Three branches of study:
1. Tidal and coastal engineering;
2. Reclamation;
3. Rivers and navigation works.

The course lasts eleven months and leads to a Diploma.

REQUIREMENTS FOR ADMISSION: a degree in engineering of a recognized institution of higher learning.

NEXT COURSE STARTING: October 1959 (at Delft).

Free (Reformed) University of Amsterdam - Netherlands Universities Foundation For International Co-operation

Information: Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

COURSE OFFERED:

Summer Course of the Combined Netherlands Universities, 1959.
Subject: Religion and Culture.

REQUIREMENTS FOR ADMISSION: Students or graduates of an institute of higher education,
NEXT COURSE: July 1959.

Research Institute for Management Science — Netherlands Universities Foundation for International Co-operation

Information: Netherlands Universities Foundation for International Co-operation, 27, Molenstraat, The Hague.

COURSE OFFERED:

International Course on Small-Scale Industries. Theoretical and practical training in investigating and solving the specific problems of small-scale industries, and in finding a methodology which can be applied to the establishment of new industries. Successful attendance of the course leads to a diploma.

REQUIREMENTS FOR ADMISSION: B.Sc. or M.Sc. in engineering or equivalent degree of recognized universities.

NEXT COURSE: November 1959 until end of April 1960.

International Training Centre for Aerial Survey

Information: The Dean, International Training Centre for Aerial Survey, 3, Kanaalweg, Delft.

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[1] Courses are given in English only, unless otherwise mentioned.
[2] For Indian Citizens application will close one month earlier.

COURSES OFFERED:

- *a.* Photogrammetry, including cartography, topography and theory of errors;
- *b.* Photogeology;
- *c.* Use of air photographs for soil survey and other agricultural purposes;
- *d.* The same for forestry and other sylvicultural purposes;
- *e.* Air photography and survey navigation.

Lectures and instruction are given in English, French or German.

Courses are adapted to individual needs, and may therefore vary from some months to two years.

REQIREMENTS FOR ADMISSION: Dependent upon the individual student's programme of study.

NEXT COURSE(S) STARING: September 1959, and January 1960.

Roman Catholic University at Nymegen

Information: Facluty of Theology, 13, Wilhelminasingel, Nymegen.

COURSE OFFERED:

"Theological Week", 19–22 July, 1959.

SUBJECT:

"The Sacraments in the Life of The Church".

Institute of Oriental Studies, Leyden

Information: The Secretary, Institute of Oriental Studies, 61, Rapenburg, Leyden.

COURSES OFFERED:

Language and culture of Indonesia and Malaya, the Arabian Countries, Japan, China.

REQUIREMENTS FOR ADMISSION: Candidates must be qualified for university studies in their own country.

NEXT COURSES STARTING: October 1959 (duration 3 or 7 months).

The Hague Academy of International Law

(Founded in 1923 with aid from the Carnegie Endowment).

Information: The Secretariat, The Hague Academy of International Law, Peace Palace, The Hague.

COURSES OFFERED:

- *a.* 30th Summer Session, 1959 (consisting of two periods). Lectures on international law in English and French are given in both periods. At the end of each period students admitted to the course sit for examination, which leads in the case of a pass to the award of a diploma.

  REQUIREMENTS FOR ADMISSION: Study and/or practical experience in international law; university professors and students, civil servants, judges, lawyers, diplomatic, consular and international officers.

  NEXT COURSE: 1st period: July 13–31, 1959; 2nd period: August 3–21, 1959.
- *b.* 3rd Session of the Centre of Studies and Research in International Law and International Relations. During this session 30 specially selected scholars will be dealing with case-studies in international law. Attendants of the course will be divided into an English-speaking and a French-speaking group, each with its own Director of Studies.

  REQUIREMENTS FOR ADMISSION: advanced academic degree, such as the Academy's diploma, or proof of at least three years' actual practice in international affairs.

Netherlands Universities Foundation for International Co-operation

Information: NUFFIC, 27, Molenstraat, The Hague.

COURSE OFFERED:

"Survey of the Netherlands" — introductory courses on the Netherlands, lasting about one week.

REQUIREMENTS FOR ADMISSION: usual requirements for university study.

NEXT COURSE: courses will be given during summer months, upon request, for groups of at least 15 students.

Bouwcentrum (Building Centre)

Information: Bouwcentrum, P.O. Box 299, Rotterdam.

COURSE OFFERED:

International Course on Building – in co-operation with the Central Organization for Applied Scientific Research in the Netherlands, TNO, and the International Federation of Housing and Town Planning. The course is on the graduate level and lasts six months. Its object is to present a systematic basis for the treatment of the problems encountered in the building industry and to suggest a number of practical methods for tackling these problems.

REQUIREMENTS FOR ADMISSION: B.A., B.Sc. or equivalent degree of recognized universities or colleges. Applicants must, in their own countries, have a task concerned with building.

NEXT COURSE STARTING: October 1959.

3RD INTERNATIONAL COURSE IN HYDRAULIC ENGINEERING
1959-1960

Delft
The Netherlands

Engineers from all over the world are now studying in the 2ND International Course in Hydraulic Engineering at the Technological University of Delft. The programme of this 11 months' course includes:

LECTURES
EXCURSIONS
DESIGN WORK
PRACTICAL WORK

The participants are taking advantage of the experience and knowledge of leading Dutch engineers and of the many important hydraulic works now under construction or in operation in the Netherlands. All instruction is given in the English language.

THE COURSE WILL BE REPEATED IN 1959-1960,
BEGINNING OCTOBER 1959.

Special attention can be paid to one of the following main branches of study, according to the individual student's particular preference:

Tidal and Coastal Engineering (including harbours)
Rivers and Navigation Works
Reclamation (including ground-water recovery)

For prospectus and calendar of the 1959-1960 course, containing detailed information, please apply to:

THE REGISTRAR
INTERNATIONAL COURSE IN HYDRAULIC ENGINEERING
NETHERLANDS UNIVERSITIES FOUNDATION FOR INTERNATIONAL CO-OPERATION (NUFFIC)
27, MOLENSTRAAT
THE HAGUE, THE NETHERLANDS

The Philips International Institute of Technological Studies

Information: Director of Studies, Philips International Institute, Eindhoven.

COURSES OFFERED:

a. Individual, theoretical and experimental curricula on any subject within the range of Philips' activities; for instance, electronics and applications thereof, X-rays, light and lighting, etc.

b. Three-month course of lectures on basic electronics (October–December).

c. Three-month advanced-level course of lectures. The main subject of this course may differ from year to year but will generally be related to some form of applied electronics.

Teaching language is English. Nominal duration of a complete period of study is one year. REQUIREMENT FOR ADMISSION: a graduate science or engineering degree.

Commencement of next course: In view of the individual character of the study, students may enter upon their course at any date; the courses mentioned will, however, usually start in October and February.

International Agricultural Centre at Wageningen.

Information: Director, International Agricultural Centre, 1, Generaal Foulkesweg, Wageningen.

COURSES OFFERED:

a. Qualification courses, during which students from abroad will be trained in a number of specific subjects, including the Dutch language, which will form a basis for a successful full-time Honours Course at the State Agricultural University at Wageningen, leading to the degree of "Landbouwkundig Ingenieur" (M. Sc.).
REQUIREMENTS FOR ADMISSION: B.Sc. or equivalent, degree of recognized universities or colleges.
Next course: October 1959.

b. Research and specialization facilities in special branches of agricultural science, after completion of which a certificate is awarded. Training is adapted to individual needs and may vary from 3 to 12 months.
REQUIREMENTS FOR ADMISSION: in general, M. Sc. or equivalent degree of recognized universities or colleges.

c. International meeting on methods and programme planning in agricultural and home economics extension, Wageningen, July 6–31, 1959. Lectures, discussions and "workshops" by experts from F.A.O., O.E.E.C. and from various countries, practical field training in small groups and field trip through characteristic extension areas in the Netherlands.
Fee: Dfl. 780,—, being approximately U.S. $ 206.— £ 74.—.

This amount includes administration fee; board and lodging at Wageningen and during field trips; transport charges during field trips and local visits; programmes, papers, and similar publications.

INTERNATIONAL COURSE ON SMALL-SCALE INDUSTRIES

The Research Institute for Management Science at Delft will organise the 6th International Course on Small-Scale Industries between November 3, 1959 and April 27, 1960.

This six-month's postgraduate course is designed for persons preferably with an engineering degree or a comparable level of knowledge obtained through several years of industrial experience. The course is divided into two equal periods, one dedicated to theoretical instruction and the other to individual practical work. Instruction is given in the English language.

A choice can be made from three branches of study

- **Establishment of new industries**
- **Improvement of conditions in existing industries**
- **Establishment and management of training centres, institutions and organisations for the promotion of, and assistance to, small-scale industries.**

All enquiries should be addressed to:
THE NETHERLANDS UNIVERSITIES FOUNDATION FOR INTERNATIONAL CO-OPERATION
27, Molenstraat, the Hague, the Netherlands.

The following institutions of higher education participate in the Netherlands Universities Foundation for International Co-operation:

State University at Leyden
State University at Groningen
State University at Utrecht
University of Amsterdam
Free (Reformed) University of Amsterdam
Roman Catholic University at Nymegen
Technological University at Delft
Agricultural University at Wageningen
Netherlands School of Economics at Rotterdam
Roman Catholic School of Economics at Tilburg
Technological University at Eindhoven

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